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THE PANAMA CANAL RECORD

PUBLISHED WEEKLY UNDER
THE AUTHORITY AND SUPER-
VISION OF THE PANAMA CANAL

AUGUST 15, 1923, TO AUGUST 6, 1924

VOLUME XVII
WITH INDEX

THE PANAMA CANAL
BALBOA HEIGHTS, CANAL ZONE
1924

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Volume XVII. Balboa Heights, C. Z., August 15, 1923. No. 1.

Summary of First Nine Years of Canal Operation.

The Panama Canal completed 9 years of operation at the close of business on August 14, 1923, having been opened to commerce on August 15, 1914. During the 9 years of operation the total number of commercial vessels transiting the Canal was 20,474. They carried 84,284,474 tons of cargo through the Canal.

The Canal was opened to commercial traffic shortly after the beginning of the war in Europe. The war and the interruptions of traffic due to slides, the last serious one of which came to an end on April 15, 1916, interfered with the normal use of the Canal in earlier years. These years were followed by a period of scarcity of tonnage, high freights and financial and industrial uncertainties, which in turn led to a period of widespread commercial stagnation wherein cargo offerings reached a low ebb and a large proportion of the tonnage of all the maritime nations were withdrawn from service.

During all this period, however, except for temporary depressions, traffic through the Canal has shown a consistent increase. The past year has been by far the best of all, and has been marked by an almost uninterrupted succession of record months, wherein the shipping of practically all of the leading maritime nations routed through the Canal has shown a healthy increase. The largest increase has been in vessels of United States registry, resulting from the increase in the intercoastal trade. The increased intercoastal trade in turn is largely due to the development of the California oil fields and the consequent heavy movement of tanker tonnage through the Canal, which only during the past year has become an important factor in Canal traffic. Irrespective of tanker tonnage, however, there has been a gratifying increase of traffic through the Canal, particularly in cargo carried.

In the following tabulation, a summary of traffic through the Canal during the first 9 years of operation is shown, listing the number of vessels, the Panama Canal net tonnage, cargo tonnage, and tolls collected. This tabulation lists only vessels paying tolls. The amounts given for tolls are approximately correct; to arrive at the receipts for the periods 15th to 31st and 1st to 14th of each August except 1914 and 1923, the total for the month was divided in proportion to the number of days:

Period from—	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	Tolls.
August 15, 1914 to August 14, 1915	1,311	4,560,774	5,861,785	$5,171,757.53
August 15, 1915 to August 14, 1916	729	2,310,408	2,973,206	2,251,433.60
August 15, 1916 to August 14, 1917	1,854	5,904,580	7,132,694	5,753,156.87
August 15, 1917 to August 14, 1918	2,051	6,487,214	7,431,495	6,365,203.54
August 15, 1918 to August 14, 1919	2,027	6,198,874	6,981,996	6,286,927.82
August 15, 1919 to August 14, 1920	2,580	8,905,818	9,839,918	8,965,342.42
August 15, 1920 to August 14, 1921	2,860	11,527,138	11,330,400	11,247,739.05
August 15, 1921 to August 14, 1922	2,790	11,788,742	11,522,018	11,532,596.85
August 15, 1922 to August 14, 1923	4,272	20,283,394	21,210,962	18,975,189.06
Total to August 15, 1923	20,474	77,966,942	84,284,474	79,549,346.74

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 11, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Muna Prea [1]	4	23.35	5	6.27	5	13.01	8	15.15	British	Imperial Oil Co	360.3	49.2	14.0	Habana	Talara	Ballast		4,437	2,717
Nebraskan	5	0.10	5	7.40	5	14.50	5	17.00	American	American-Hawaiian Line	368.6	55.2	23.6	Baltimore	Portland	(6)	5,622	5,707	3,643
Melville Dollar	5	0.55	5	8.00	5	15.11	5	16.17	American	Dollar Line	429.0	55.2	26.0	New York	San Francisco	General, steel	8,000	7,581	5,519
Salvador	30	17.35	5	9.20	5	16.05	5	17.23	British	Standard Oil Co	503.0	68.0	20.0	New York	San Pedro	Ballast		10,313	7,492
Mahana	5	0.20	5	9.55	5	17.29	5	18.43	British	Pacific Steam Navigation Co	215.0	35.4	15.6	Cristobal	Champerico	General	1,047	1,270	735
Grant [2]	3	17.20	5	10.33	5	18.10	5	19.18	American	Shaw, Savill, and Albion	500.9	63.0	29.6	London	Auckland	General	9,145	12,151	8,727
Sussex	5	7.44	5	11.15	5	18.59	5	19.54	British	U. S. Army	505.0	55.0	26.3	New York	San Francisco	Automobiles, etc.	2,430		
Mabriton	5	17.25	6	6.18	6	13.39	6	16.08	British	Federal Steam Navigation Co	420.0	54.0	24.0	New York	Sydney	(7)	3,665	7,016	5,078
Laura C. Hall [3]	4	21.40	6	6.15	6	14.42	7	8.38	British	R. Chapman	412.0	55.0	14.6	Baltimore	San Francisco	Ballast		6,781	4,811
Standard [1]	6	0.40	6	7.16	6	14.45	6	16.08	American	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	40	132	72
S. M. Spalding [1]	6	6.22	6	7.50	6	15.42	6	18.45	American	Standard Oil Co	523.0	68.0	21.9	New York	San Pedro	Ballast		12,171	8,673
Agwibay [1]	6	6.32	6	8.50	6	16.37	6	18.45	American	Pan-American Petroleum Co	435.0	56.0	20.0	Boston	San Pedro	Ballast		7,331	5,080
La Crescenta [1]	6	8.11	6	10.00	6	16.58	6	23.46	British	Atl. Gulf & W. I. S. S. Co	468.3	62.7	20.0	Baltimore	San Pedro	Ballast		9,776	6,903
Steelmaker	6	14.50	7	6.15	7	13.43	7	18.10	American	Harris & Dixon	400.0	53.0	20.0	Middlesboro	San Pedro	Ballast		6,128	4,062
Malaya [4]	3	19.30	7	6.30	7	17.11			British	U. S. Steel Products Co	395.5	55.0	27.10	Baltimore	San Diego	General	8,762	7,285	5,256
Southwestern Miller	6	22.52	7	7.30	7	14.36	7	19.40	British	Dr. C. Lockhart Coute	96.0	20.0	11.6	Kingston	New Guinea	Ballast		90	82
Archer	6	17.50	7	7.40	7	15.53	7	17.00	American	Furness Withy	420.0	52.6	20.0	Swansea	San Pedro	General	3,784	7,138	5,122
Agwihavre [1]	7	10.50	7	11.07	7	18.02	7	23.30	American	Barber Steamship Lines (S. B.)	440.0	56.0	26.6	New York	Hongkong	General, case oil	9,192	8,315	6,100
William G. Warden [1]	7	11.38	7	11.50	7	18.56	7	20.00	American	Atl. Gulf & W. I. S. S. Co	480.5	66.0	18.6	New York	San Pedro	Ballast		9,394	6,305
Swiftlight [1]	6	11.12	8	6.17	8	13.43	8	15.15	American	Standard Oil Co	500.0	68.2	22.0	New York	Los Angeles	Ballast		10,524	7,600
Paul Shoup [1]	7	14.54	8	6.17	8	12.59	8	17.25	American	Swiftsure Oil Co	464.0	60.0		Texas City	San Pedro	Ballast		8,473	6,050
G. Harrison Smith [1]	7	15.32	8	7.05	8	14.54	8	16.06	British	Associated Oil Co	424.2	58.2	20.0	Fall River	San Pedro	Ballast		7,333	5,119
Isis [5]	7	17.50	8	7.30	8	15.35	8	16.35	German	International Petroleum Co	550.6	72.0	24.6	New York	San Pedro	Ballast		15,476	11,102
H. M. Storey [1]	7	20.55	8	7.55	8	16.17	8	17.10	American	Kosmos Line	376.0	51.7	18.8	Antwerp	San Francisco	General	2,916	5,788	4,027
Cerro Ebano [1]	7	21.28	8	8.10	8	16.26	8	17.30	American	Standard Oil Co	500.0	68.2	22.0	New York	Los Angeles	Ballast		11,224	7,849
Mystic	7	22.00	8	9.00	8	17.45	8	21.45	American	Pan-American Petroleum Co	480.5	66.0	20.0	New York	San Pedro	Ballast		9,398	6,453
Manavi	30	16.20	8	9.26	8	17.51	8	22.02	British	United American Lines	400.7	54.2	27.0	New Orleans	San Pedro	General	7,462	6,623	4,625
Moerdijk	7	6.10	8	9.43	8	16.54	8	17.50	Dutch	Pacific Steam Navigation Co	216.0	35.1	12.10	Cristobal	Guayaquil	General	323	1,357	884
Robert E. Hopkins [1]	7	21.46	8	10.50	8	18.42	8	19.52	American	Holland-American Line	487.0	62.0	21.0	Rotterdam	San Pedro	General	2,378	9,165	7,056
Geo. H. Jones [1]	7	22.30	8	10.45	8	19.25	9	0.54	American	Tidewater Oil Co	424.4	58.2	18.0	New York	San Pedro	Ballast		7,333	5,244
W. E. Hutton [1]	7	23.35	8	11.19	8	20.15	8	21.27	American	Standard Oil Co	429.3	59.2	20.0	Antilla	San Pedro	Ballast		7,689	5,383
Texas	7	11.20	8	11.35	8	21.07	8	22.39	French	Pure Oil Co	435.0	56.0	25.0	Philadelphia	Los Angeles	Ballast		7,481	5,120
Eurana	8	0.15	8	12.30	8	22.00	9	8.02	American	French Line	425.0	52.0	24.2	Martinique	Santa Rosalia	General	4,325	7,081	4,959
										Planet Steamship Co	400.0	56.2	26.0	New York	Seattle	General, steel	8,440	7,381	5,595

[1] Tanker. [2] Transport. [3] Motor schooner. [4] Yacht. [5] Motor ship. [6] Steel, Fuller's earth, and general. [7] Refined oil, agricultural implements, automobiles, and general.

Karonga	8	4.20	8	12.55	8	22.39	9	0.05	British	Ellerman & Bucknall S. S. Co.	433.0	57.4	21.7	New York	Yokohama	General	5,250	8,586	6,695
Dean Emery [1]	4	22.18	8	13.15	8	23.35	9	0.54	American	Pan-American Petroleum Co.	429.3	59.2	21.11	Providence	San Pedro	Ballast		7,709	5,517
Dorothy Luckenbach	8	11.50	8	13.35	9	0.32	10	2.56	American	Luckenbach Line	448.9	60.0	30.6	New York	Los Angeles	General	10,290	9,294	6,861
Munplace	8	20.13	9	6.20	9	13.09	9	21.12	American	Munson Line	327.2	46.2	18.8	New York	Seattle	General	3,164	3,761	2,734
Patrician	9	9.42	9	9.55	9	16.58	9	18.05	British	Harrison Line	440.0	57.0	23.0	Liverpool	Victoria	General	6,500	6,353	4,598
Trewyn	9	9.52	9	10.10	9	17.22	9	19.44	British	Hain Steamship Co	400.0	52.0	19.0	New York	Brisbane	General	5,073	5,823	4,093
Hoven [1]	9	1.50	9	11.40	9	18.07	9	19.06	American	Walker & Daly (S. B.)	434.8	56.2	20.5	New York	San Pedro	Ballast		7,426	5,166
Pennsylvanian	9	13.00	9	13.05	9	19.08	10	0.30	American	American-Hawaiian Line	407.7	53.7	21.10	Boston	Los Angeles	General	5,430	7,107	4,916
Achilles [8]	7	18.07	9	14.00	9	16.45	.....	.....	American	Panama Railroad Steamship Line	514.0	65.2	10.1	Norfolk	Gatun Lake	Ballast		11,519	7,008
Aconcagua	9	10.57	10	6.13	10	13.32	10	14.37	Chilean	Chilean Line	422.8	56.2	24.7	New York	Valparaiso	General	1,344	7,758	4,705
Suporteo	9	17.15	10	7.30	10	15.33	10	16.40	American	Submarine Boat Corporation	324.0	46.2	22.0	Newark	Tacoma	General	2,000	3,984	2,612
Wido	9	19.43	10	7.35	10	15.02	10	16.35	German	Roland Line	393.7	54.4	21.0	Hamburg	Corral	General	5,110	6,585	4,631
Agwistone [1]	9	19.30	10	7.50	10	16.02	10	19.50	American	Atl., Gulf & W. I. S. S. Co	490.9	68.1	20.0	New York	San Pedro	Ballast		10,600	7,526
Taketoyo Maru	9	19.56	10	8.30	10	16.18	10	17.21	Japanese	Nippon Yusen Kaisha	445.0	58.0	18.10	New York	Vancouver	General	4,132	7,972	5,687
Argon [1]	10	3.05	10	9.12	10	16.42	10	17.45	American	Standard Transportation Co	435.6	56.2	18.6	New York	San Pedro	Ballast		7,386	5,183
San Tiburcio [1]	10	9.20	10	9.40	10	17.30	10	18.50	British	Eagle Oil Co	413.0	53.0	24.4	Tampico	Valparaiso	(9)	7,000	6,272	4,343
Lena Luckenbach	11	6.45	11	7.20	11	15.10	11	20.18	American	Luckenbach Line	425.0	53.8	30.0	Galveston	Seattle	General	10,000	7,217	5,295
Alvarado	11	9.35	11	9.45	11	16.44	11	20.55	American	Pacific Transport Co	245.0	41.5	16.0	Mobile	Seattle	General	1,775	2,122	1,504
Agwistar	11	9.55	11	10.14	11	17.35	11	22.20	American	New York & Cuba Mail S. S. Co	370.0	53.1	27.0	New York	Seattle	General	5,500	5,523	4,068
Clearton	11	12.40	11	13.00	11	20.40	11	21.30	British	R. Chapman	400.0	52.0	17.0	Las Palmas	San Francisco	Ballast			

[1] Tanker. [8] Collier. [9] Kerosene and gasoline.

THROUGH THE CANAL.—PACIFIC TO ATLANTIC.

Elkton	4	18.45	5	6.58	5	14.38	5	14.38	American	Barber Lines	402.6	54.8	25.0	Manila	New York	Sugar, general	3,122	6,929	5,216
Frederick R. Kellogg [1]	5	3.45	5	8.11	5	15.10	5	15.10	American	Huasteca Petroleum Co	425.8	57.0	28.0	San Pedro	New Orleans	Crude oil	10,400	7,178	4,963
Monticello	5	15.47	6	7.08	6	14.00	6	14.00	American	United American Lines	468.5	58.5	26.0	Los Angeles	Hamburg	(11)	10,500	7,975	5,412
Cuba	5	14.13	6	8.13	6	15.30	.....	.....	American	Pacific Mail Steamship Co	307.7	42.2	16.0	San Francisco	Cristobal	Coffee, general	267	3,429	2,206
Santa Olivia	5	16.45	6	8.17	6	15.38	6	15.38	American	Pacific Mail Steamship Co	404.6	53.9	25.0	Seattle	New York	Lumber, general	5,340	6,779	4,921
Santa Teresa	6	5.00	6	9.11	6	16.45	6	21.35	American	Grace Line	360.2	51.6	22.8	Talcahuano	New York	General	2,832	4,623	3,469
Vindeggen	6	5.30	6	9.44	6	17.42	6	18.15	Norwegian	Ardmore Steamship Co	330.8	46.8	21.6	Caldera	New York	Copper, ore	4,503	3,517	2,268
Balboa	6	8.00	6	9.47	6	17.45	.....	.....	Colombian	Compania Costanera Colombia	190.0	29.1	15.0	Tumaco	Pto. Colombia	General	536	737	335
Bainbridge [10]	5	10.00	6	10.58	6	19.12	8	11.05	American	Putman Lumber Co	170.4	37.6	17.0	Port Townsend	Nuevitas	Lumber	900	592	507
Hawaiian	6	12.10	6	12.55	6	20.18	6	20.18	American	American-Hawaiian Line	406.8	51.1	23.0	Portland	Philadelphia	Lumber, general	6,000	6,039	4,180
Agwimex [1]	5	11.00	6	13.50	6	21.35	6	21.35	American	Ward Line	480.5	66.0	27.6	San Pedro	Baltimore	Crude oil	13,528	9,394	6,306
Willpolo	6	15.45	7	6.37	7	14.20	7	14.20	American	Williams Steamship Co	386.8	52.2	19.0	Los Angeles	New York	(12)	3,000	5,680	4,080
J. N. Pew [1]	7	3.45	7	8.04	7	22.00	9	10.45	American	Sun Oil Co	480.5	66.0	28.1	San Pedro	Chester, Pa	Crude pet	13,250	9,494	6,612
F. J. Luckenbach	7	5.30	7	8.49	7	15.32	7	15.32	American	Luckenbach Line	446.0	56.17	21.7	Portland, Ore.	Mobile	General	3,000	8,508	6,179
Toco [1]	7	8.40	7	9.32	7	16.50	7	18.30	British	Chile Steamship Co. of New York	439.6	56.1	14.0	Tocopilla	Tampico	Ballast		7,693	4,831
Livingston Roe [1]	7	14.45	8	7.06	8	17.27	8	17.27	American	Standard Oil Co	462.4	60.2	27.0	San Pedro	New York	Crude oil	12,169	8,491	6,065
J. C. Donnell [1]	7	15.10	8	8.10	8	18.16	8	18.16	American	Atlantic Refining Co	500.0	68.2	28.6	San Pedro	Philadelphia	Crude oil	15,200	10,435	7,900
Sudurco	8	2.45	8	8.56	8	18.30	8	18.30	American	Transmarine Corporation	324.0	46.2	18.0	Aberdeen	New York	Lumber, copper	3,555	3,984	2,636
Sunoil [1]	8	3.45	8	8.58	8	19.25	8	19.25	American	Sun Oil Co	430.0	58.2	26.0	San Pedro	Philadelphia	Crude oil	10,334	7,439	5,209
Iowan	7	21.45	8	9.36	8	20.28	8	20.28	American	American-Hawaiian Line	407.7	53.7	19.0	Los Angeles	Boston	General	2,351	7,091	5,002

[1] Tanker. [10] Sail boat. [11] Lumber, wheat, copper. [12] Lumber and canned goods.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gros.	Net.
J. M. Danziger [1]	8	9.45	8	10.35	8	21.37	8	21.37	American	Pan.-Amer. Pet. & Transp. Co	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	10,500	6,993	4,886
Huguenot [1]	8	2.00	8	13.32	8	22.55	8	22.55	American	McAllister Brothers (S. B.)	434.8	56.2	26.10	San Pedro	New York	Crude oil	10,100	7,301	5,099
Camden [1]	9	3.45	9	7.46	9	16.00	9	22.05	American	United Fruit Co	419.5	56.5	26.0	Los Angeles	New Orleans	Crude oil	9,428	6,977	4,959
Orinoco	9	0.05	9	8.17	9	16.45	9	16.45	American	Oriental Navigation Co	376.4	52.3	23.0	Genoa Bay	Boston	Lumber	5,700	5,455	3,902
Fred W. Weller [1]	9	6.00	9	9.35	9	18.20	9	18.20	American	Standard Oil Co	500.0	68.0	29.0	San Pedro	New York	Crude oil	15,000	10,928	7,710
Robin Adair	9	2.25	9	11.46	9	19.20	9	19.20	American	Seas Shipping Co	424.8	55.2	22.0	Vancouver	New York	Lumber, general.	4,139	7,470	5,529
Cerro Azul [1]	9	15.45	10	7.05	10	14.25	10	14.25	American	Huasteca Oil Co	480.6	65.0	28.0	San Pedro	New Orleans	Crude oil	13,000	9,398	6,453
Matinicock [1]	10	0.30	10	7.55	10	15.50	10	15.50	American	Standard Oil Co	459.1	60.0	25.6	San Pedro	New York	Crude oil	10,242	8,171	5,882
Horace Luckenback	10	3.01	10	8.24	10	15.20	10	15.20	American	Luckenbach Line	445.0	58.0	23.0	Seattle	New York	General	5,059	8,626	6,290
Edward L. Doheny, Jr [1]	10	5.00	10	8.42	10	16.45	10	18.05	American	Pan.-Amer. Pet. & Transp. Co	467.6	62.7	27.6	San Pedro	New Orleans	Crude oil	12,994	9,655	7,166
Alameda [1]	10	6.30	10	9.44	10	17.45	10	18.05	American	Standard Oil Co	430.0	58.2	26.2	San Pedro	New York	Crude oil	9,000	7,425	5,356
Dillwyn [1]	10	5.50	10	10.00	10	18.55	10	18.55	American	C. D. Mallory & Co	435.0	56.0	28.0	San Pedro	New York	Crude oil	10,332	7,441	5,180
Solana [1]	10	14.00	11	7.05	11	14.52	11	16.40	American	Pacific Mail Steamship Co	419.5	56.5	26.6	San Pedro	Fall River	Crude oil	10,000	7,060	5,025
Orcus	10	20.40	11	7.35	11	16.18	11	16.18	American	Wessel, Duval & Co	380.0	53.1	23.6	Antofagasta	Cristobal	Nitrate	6,898	5,667	4,227
W. F. Burdell [1]	10	20.30	11	8.19	11	16.45	11	16.45	American	Pure Oil Steamship Co	435.0	56.0	27.0	San Pedro	Philadelphia	Crude oil	10,552	7,433	5,093
U. S. S. Nitro	10	20.30	11	9.02	11	17.20			American	U. S. Navy	484.0	59.0	20.0	San Diego	Hampton R'ds	Naval supplies	334		
Santa Teela	10	21.05	11	9.41	11	17.55	11	20.00	American	Grace Line	298.6	40.0	16.0	Chancay	New York	[13]	1,123	2,832	1,803
J.W. VanDyke [1]	11	6.25	11	9.44	11	18.20	11	22.15	American	Atlantic Refining Co	435.0	56.0	27.0	San Pedro	Philadelphia	Crude oil	10,000	7,460	5,215
W. M. Irish [1]	11	9.20	11	10.40	11	19.25	11	19.25	American	Atlantic Refining Co	435.0	56.0	27.0	San Francisco	Philadelphia	Gasoline	9,159	7,392	5,453
Gargoyle [1]	10	22.30	11	11.06	11	20.40	11	20.40	American	Vacuum Oil Co. of New York	425.0	57.2	27.2	San Francisco	Paulsboro	Lubricating oil	10,100	7,510	4,989
Swiftscout [1]	11	3.00	11	11.42	11	21.35	12	6.15	American	C. D. Mallory & Co	464.6	60.2	25.4	San Pedro	Fall River	Crude oil	11,427	8,473	6,104
Hampton Roads [1]	11	13.30	11	14.23	11	23.30	12	3.12	American	McAllister Brothers	431.0	59.2	27.6	San Pedro	Fall River	Crude oil	10,250	8,093	5,440

[1] Tanker.

[13] Coffee, cotton, cocoa, ivory nuts.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
August 5	Abangarez	United Fruit Co	New Orleans via Habana.
August 5	Pastores	United Fruit Co	Port Limon.
August 5	Curlew [14]	U. S. Navy	Philadelphia.
August 6	Contocook [15]	U. S. Navy	Norfolk.
August 7	Rail [15]	U. S. Navy	Norfolk.

*DEPARTURES.

Date.	Vessel.	Line.	For—
August 5	Pastores	United Fruit Co	New York via Habana.
August 6	Abangarez	United Fruit Co	Bocas del Toro.
August 7	Bobolink [15]	U. S. Navy	Philadelphia.
August 7	Contocook [15]	U. S. Navy	Philadelphia.
August 7	Curlew [14]	U. S. Navy	Cartagena.

[14] Mine sweeper.

[15] Tug.

(Continued on page 24, column 2.)

Commercial Traffic Through the Panama Canal in July, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	120	516,675	634,141	813,430	517,260	$507,411.49	277,428
United States to South America:							
United States	7	21,749	26,681	38,596	21,683	23,000.25	12,730
British	7	25,128	31,409	42,443	26,248	27,066.93	10,454
Norwegian	3	6,686	8,516	9,755	5,903	8,272.80	3,359
Japanese	2	8,709	9,400	11,746	8,508	8,819.00	1,312
Danish	2	5,841	7,886	9,420	5,890	5,677.92	.....
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	981
Totals	22	71,592	88,564	119,249	72,118	77,185.65	28,836
From United States to Far East:							
British	7	28,672	37,164	44,771	28,354	35,840.00	39,329
Japanese	6	22,219	27,516	34,957	21,922	27,641.05	25,556
United States	5	18,914	28,552	30,681	18,769	23,642.50	37,906
Danish	1	2,981	4,607	4,714	2,999	3,726.25	7,874
Totals	19	72,786	97,839	115,123	72,044	90,849.80	110,665
From Europe to United States:							
Norwegian	7	27,066	32,463	40,007	26,612	24,446.28	6,983
Swedish	4	13,011	20,276	21,558	16,663	16,263.75	31,348
British	4	16,030	19,580	25,524	15,491	15,340.74	6,776
Danish	2	4,936	5,455	6,826	5,077	6,090.55	7,741
United States	1	4,256	5,066	6,901	4,256	3,647.52	.....
Totals	18	65,299	82,840	100,816	68,099	65,788.84	52,848
From Europe to South America:							
British	6	22,834	27,596	34,918	21,918	27,792.39	17,558
German	3	10,113	14,780	16,760	10,057	12,641.25	13,528
French	2	7,166	8,227	11,446	7,281	8,957.50	7,297
Italian	2	5,311	6,103	8,343	4,916	6,636.75	1,434
Spanish	2	4,913	6,154	9,016	6,010	5,434.45	144
Japanese	1	3,324	4,457	5,454	3,302	3,214.80	8
Totals	16	53,661	67,317	85,937	53,484	64,677.14	39,969
From United States to Australasia:							
British	10	36,679	47,137	55,961	36,780	45,421.20	52,632
United States	2	8,780	8,736	11,554	8,764	10,483.20	12,276
Totals	12	45,459	55,873	67,515	45,544	55,904.40	64,908
From Cristobal, C. Z. to South America:							
Chilean	2	3,608	6,250	7,612	4,560	4,510.00	1,265
Peruvian	2	2,719	5,345	9,020	4,517	3,398.75	508
British	2	612	956	1,152	715	765.00	318
Colombian	1	334	335	864	614	402.00	80
Totals	7	7,273	12,886	18,648	10,406	9,075.75	2,171
From Europe to Canada:							
British	2	10,100	13,409	15,930	10,144	12,625.00	16,392
German	1	4,909	6,732	8,109	4,883	6,136.25	3,087
Danish	1	4,219	5,317	6,645	4,244	5,273.75	9,472
French	1	3,224	4,854	5,376	3,198	4,030.00	2,000
Totals	5	22,452	30,312	36,060	22,469	28,065.00	30,951
From Europe to Australasia:							
British	4	24,466	30,942	38,976	24,621	30,582.50	28,206
From West Indies to South America:							
Dutch	1	4,250	6,653	6,899	4,417	5,312.50	3,949
British	1	2,551	2,717	4,145	2,566	1,956.24	.....
Danish	1	1,946	2,390	3,135	1,959	1,720.80	.....
Totals	3	8,747	11,760	14,179	8,942	8,989.54	3,949
Foreign ships in ballast between United States ports:							
British	2	5,749	7,651	9,413	5,769	6,190.72	.....
Norwegian	2	5,563	7,359	8,950	5,605	5,298.48	.....
Totals	4	11,312	15,010	18,363	11,374	11,489.20	.....

ATLANTIC TO PACIFIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Cristobal, C. Z. to United States:							
United States	3	6,682	8,112	10,780	6,624	$6,736.73	3,194
From United States to Balboa, C. Z.:							
United States	2	11,337	11,434	15,066	11,221	13,720.80	1,226
From Canada to Australasia:							
British	2	7,158	8,973	11,469	7,190	8,947.50	9,847
From United States to Mexico:							
Norwegian	1	2,380	3,180	3,779	2,391	2,975.00	2,997
Mexican	1	163	192	.....	.....	138.24	.....
Totals	2	2,543	3,372	3,779	2,391	3,113.24	2,997
From Mexico to United States:							
British	1	4,645	5,311	7,270	4,513	3,823.92	.....
United States	1	3,509	4,336	5,614	3,421	3,121.92	.....
Totals	2	8,154	9,647	12,884	7,934	6,945.84	.....
From United States to Canada:							
United States	2	4,899	7,061	7,997	4,890	6,123.75	11,863
From Cristobal, C. Z. to Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	1,915
From Canada to South America:							
British	1	7,632	7,732	10,825	7,443	5,724.00	.....
From South America to Canada:							
United States	1	5,753	7,526	9,959	5,753	7,191.25	4,712
From Mexico to South America:							
British	1	4,330	4,831	7,337	4,286	5,412.50	9,607
From South America to Far East:							
Japanese	1	3,666	4,282	5,848	3,633	4,582.50	3,518
From Europe to Mexico:							
German	1	2,640	3,524	4,243	2,615	3,300.00	702
From South America to United States:							
United States	1	402	477	1,227	552	343.44	.....
Colombian intercoastal:							
Colombian	1	334	335	864	614	402.00	520
Local—Cristobal to Balboa:							
United States	1	923	950	1,768	981	1,140.00	.....
Ecuador	1	36	36	112	36	27.00	.....
Totals	2	959	986	1,880	1,017	1,167.00	.....
From West Indies to United States:							
British	1	218	241	337	217	173.52	.....
Totals, July 1923	255	967,715	1,207,458	1,535,089	974,045	1,025,510.88	690,032
Totals, July, 1922	128	454,736	574,231	722,758	453,528	549,218.11	542,412
Totals, July, 1921	105	324,330	403,051	508,670	321,763	405,220.18	258,440

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	108	490,287	610,826	780,824	489,494	$609,333.30	997,468
From South America to United States:							
United States	10	34,946	39,842	58,237	33,970	41,986.50	81,972
British	7	35,195	40,629	56,995	36,436	43,732.15	63,963
Japanese	4	16,555	19,883	25,607	16,349	20,693.75	35,976
Danish	2	4,636	5,807	6,545	4,133	5,626.80	11,001
Norwegian	1	5,207	5,219	7,041	5,234	6,262.80	8,901
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	3,995
Totals	25	100,051	116,085	161,735	100,098	122,692.00	205,808
From South America to Europe:							
British	7	22,857	30,714	36,729	22,762	28,571.25	41,161
Dutch	4	19,715	25,341	31,647	19,742	24,643.75	40,736
German	4	13,997	17,743	21,367	13,210	17,496.25	27,378
Italian	3	9,519	11,272	14,550	8,661	11,772.60	9,498
French	2	7,269	8,336	11,614	7,401	9,086.25	12,757
Spanish	1	4,120	5,518	7,518	4,402	5,150.00	40
Totals	21	77,477	98,924	123,425	76,178	96,720.10	131,570

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From South America to Cristobal, C. Z.:							
Chilean	3	5,071	8,827	10,165	6,160	$6,338.75	222
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	4,941
British	3	1,161	1,840	2,193	1,330	1,451.25	1,271
United States	1	923	950	1,768	981	1,140.00	.....
Colombian	1	334	335	864	614	411.60	615
Totals	11	11,197	19,702	27,315	15,116	13,976.60	7,049
From Canada to Europe:							
United States	2	6,597	9,831	10,783	6,582	8,246.25	14,484
British	2	8,072	9,355	13,130	8,301	10,090.00	16,528
French	2	7,372	9,123	10,803	6,691	9,215.00	15,124
Dutch	1	5,763	7,619	9,338	5,809	7,203.75	9,926
Japanese	1	4,147	5,136	6,578	4,112	5,183.75	8,100
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	5,617
Totals	9	34,210	44,964	54,437	34,328	42,762.50	69,779
From Far East to United States:							
United States	5	24,758	30,574	37,406	24,962	29,737.37	34,011
Japanese	1	4,435	5,856	7,007	4,327	5,543.75	7,119
Totals	6	29,193	36,430	44,413	29,289	35,281.12	41,130
From United States to Europe:							
United States	2	10,405	12,945	16,932	10,332	13,006.25	23,280
Norwegian	2	9,842	10,625	14,238	9,482	12,177.75	17,370
French	1	2,515	2,949	4,205	2,312	3,143.75	5,317
British	1	2,495	3,007	3,910	2,510	3,118.75	5,350
Totals	6	25,257	29,526	39,285	24,636	31,446.50	51,317
From Canada to United States:							
United States	5	20,532	26,995	33,107	20,531	25,665.00	27,767
From Australasia to Europe:							
British	4	22,609	27,552	36,167	22,617	28,261.25	15,443
From South America to Egypt:							
British	3	8,121	10,849	12,890	8,220	10,151.25	19,500
Dutch	1	4,106	5,019	6,548	4,155	5,132.50	7,404
Totals	4	12,227	15,868	19,438	12,375	15,283.75	26,904
From Australasia to United States:							
British	1	5,401	7,641	8,569	5,436	6,751.25	4,076
United States	1	3,604	4,480	5,816	3,604	4,505.00	745
Norwegian	1	3,118	3,925	5,113	3,125	3,897.50	5,300
Totals	3	12,123	16,046	19,498	12,165	15,153.75	10,121
From Far East to West Indies:							
Japanese	1	4,289	4,658	5,903	4,523	5,336.25	7,800
British	1	2,556	3,466	4,086	2,511	3,195.00	6,800
Totals	2	6,825	8,124	9,989	7,034	8,531.25	14,600
From Australasia to Canada:							
British	2	6,537	8,229	11,191	6,885	8,171.25	2,145
From United States to Mexico:							
British	2	13,273	14,063	19,364	13,498	16,271.35	25,453
From South America to Mexico:							
British	2	8,578	9,554	14,672	8,545	6,878 88	.....
From Central America to Cristobal, C. Z.:							
British	2	1,286	1,441	2,298	1,304	1,607.50	568
From Balboa, C. Z. to United States:							
United States	1	5,306	5,356	7,222	5,362	6,427.20	9,714
From South America to West Indies:							
British	1	2,551	2,717	4,145	2,566	3,188.75	6,000
From United States to Cristobal, C. Z.:							
United States	1	1,201	1,560	1,974	1,161	1,501 25	595
From United States to West Indies:							
United States	1	2,024	2,573	3,266	1,965	2,530.00	3,491

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Local, Balboa to Cristobal:							
United States	2	6,016	6,008	7,970	5,886	$7,196.64	830
Panaman	1	26	26	26	26	19.50	.....
Totals	3	6,042	6,034	7,996	5,912	7,216.14	830
Totals, July, 1923	219	888,786	1,102,569	1,421,761	890,969	1,098,899.44	1,647,752
Totals, July, 1922	123	443,034	553,640	696,996	446,871	544,909.31	668,688
Totals, July, 1921	101	328,109	407,562	514,132	328,605	399,282.93	450,542

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs for three weeks ending August 11:

Yacht *Casiana*, dock and undock; clean and paint bottom; straighten propeller blade tips; steamships *Tuxpanoil*, manufacture 1 section of oil pipe; manufacture new key for circulating engine; *Colusa*, repair main engine; manufacture new piston rod for ice machine; repair lubricator pipe connections; repair sanitary system pipe; repair steam cooker and perform miscellaneous deck repairs; *Mina Brea*, electric weld leaky staybolts; repair windlass, hawse pipe, dead lights, railings, and gratings; manufacture wood and iron wedges and perform miscellaneous deck repairs; yacht *Talamanca*, weld broken gas engine cylinder head; steamship *Munplace*, manufacture 2 sets of H. P. piston rings; renew metallic packing, H. P. piston rod; repair governor gear and manufacture small steel spring.

PREVIOUSLY REPORTED.

U. S. submarines *O–9* and *O–7*, dock and undock; paint; routine docking repairs; barge *No. 131*, dock and undock; paint and perform miscellaneous repairs and alterations; steamship *Colon*, reboilering and general overhauling.

The following vessels were at the Cristobal shops for repairs during the two weeks ended August 13:

Steamships *Panama*, install manhole ring and cover; renew ceiling on side walls of crew's quarters; repair main deck planking; cut off and renew main mast; repair cargo blocks; repair rail and stanchions; secure bands on starboard boom; repair fair lead; refasten guard plate at No. 2 hatch and repair wooden pipes casing; repair M. P. slide valve; repair main condenser head; burn out water heater coils; repair feed pump; make 2 ash buckets; repair fire tools; scale and paint coal bunkers; diver to inspect propeller; Army Mine Planter *Nones*, dock and undock; repair main throttle valve and stop valve; repair tiller rope and steering gear trough; repair reducing valves on auxiliary lines; repair copper sheathing on bottom; renew skag and repair rudder; Army transport *Grant*, repair pipe covering; 20 men to clean boilers; renew boiler tubes; steamships *Manavi*, repair door lock and make keys; repair wier pump; make fittings for life-boat chocks; repair lead pipe to fresh water tanks; renew sanitary pipe; renew check valves on main boilers; repair boiler stop valve; repair 1 guy block; make 1 slice bar; overhaul piping on pantry boiler. *Ulysses*, make 2 piston-rod forgings and straighten 1 forging; temper 26 lathe tools; make 1 burner wrench and 2 T-wrenches; make 2 sheaves for towing chock; repair lifeboat, turnbuckles, and backstay; *Cristobal*, repair sounding pipe, winch throttle valve, wrenches and chisels; make 4 scupper covers; make 1 main-stay clip; make feed pump cross head; cast 6 winch throttle valve discs; install new gear on No. 5 winch; repair auxiliary steam line; make 2 plates for manholes; repair steam press; *J. N. Pew*, emergency under-water repair to damaged hull; *Balboa*, dry-dock; stage, scrape, wire brush, and paint bottom; draw tail shaft and repair; repair bilge and feed pumps; scale and clean boilers; install boiler zincs; repair and rebush rudder pintles; replace port door; install 3 fire room floor plates; make template of propeller hub bore and of coupling bolts in tail shaft; repair steering gear; install pipe guards at No. 1 hatch; repair sanitary pipe, fire line rat guards, side braces, and cargo blocks; weld shell plating; install 3 soft patches on hull; make 12 port light pans; glaze wheelhouse window.

Minor repairs—Launch *Buster Hull*, schooner *Resolute*; steamships *Salvador*, *Dean Emery*, *Mabriton*, *Jason*, and *Colombia*.
Additional repairs—Tug *Cocoli* and *L–53*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending August 11, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Salvador	Pacific Steam Navigation Co	July 29	August 4	499	1,042
Venezuela	Pacific Mail Steamship Co	July 29	July 31	333	200
Calamares	United Fruit Co	July 29	July 29	12	61
Zacapa	United Fruit Co	July 29	July 30	309	202
Manavi	Pacific Steam Navigation Co	July 29		528	
Ebro	Pacific Steam Navigation Co	July 29	July 31	592	11
Gen. O. H. Ernst	Panama Railroad Steamship Line	July 30	July 31	85	96
Eupatoria	Fidanque Henriquez (Agents)	July 30	July 31	20	275
Pastores	United Fruit Co	July 31	August 1	198	165
San Gil	United Fruit Co	July 31	August 2	3	46
Jason	Royal Netherlands W. I. Mail	July 31	August 2	169	
Puerto Rico	French Line	July 31	August 2	214	261
Parismina	United Fruit Co	August 1	August 2	839	114
Santa Elisa	Grace Line	August 1	August 2		142
Sixaola	United Fruit Co	August 1	August 2	120	187
Essequibo	Pacific Steam Navigation Co	August 1	August 2	12	312
Haarlem	Royal Netherlands W. I. Mail	August 1	August 2	115	128
Panama	Panama Railroad Steamship Line	August 3		3,273	
Colombia	Pacific Mail Steamship Co	August 3	August 4	287	29
U. S. A. T. Grant	U. S. Army	August 3	August 4	212	
Oropesa	Pacific Steam Navigation Co	August 3	August 4	73	
Laura C. Hall	Pacific Metals Corporation	August 3	August 6	66	90
Urubamba	Panama Railroad Steamship Line	August 4		1,165	
Abangarez	United Fruit Co	August 5	August 6	90	215
Cuba	Pacific Mail Steamship Co	August 5		281	
Santa Teresa	Grace Line	August 6	August 6	1	
Swiftlight	Swiftsure Oil Co	August 6	August 8	11	
Balboa	Compania Costanera Columbiana	August 6	August 6	535	
Ulua	United Fruit Co	August 7	August 8	274	105
Texas	French Line	August 7	August 8	57	173
Achilles	Panama Railroad Steamship Line	August 7		12,038	
Cartago	United Fruit Co	August 7	August 9	446	
Ulysses	Panama Railroad Steamship Line	August 7		[1] 12,066	
San Benito	United Fruit Co	August 7	August 8	8	
Moerdijk	Pacific Mail Steamship Co	August 7	August 8	36	394
Carrillo	United Fruit Co	August 8	August 9	162	137
Sixaola	United Fruit Co	August 9	August 9	1	25
Nitro	U. S. Navy	August 10	August 12	136	
Huasco	Associated Oil Co	August 11		74	

[1] Coal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending August 11, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Venezuela	Pacific Mail Steamship Co	July 29	July 30	165	
Salvador	Pacific Steam Navigation Co	July 29	July 30	4	
Manavi	Pacific Steam Navigation Co	July 29	July 30	2	
Palena	Chilean Line	July 29	July 29	61	
Los Angeles	Union Oil Co	August 2	August 3	10,500	
Hanover	U. S. Shipping Board	August 3	August 3	94	
Seiyo Maru	Toyo Kisen Kaisha	August 3	August 4	630	
Fredensbro	Det Oversoeiske Co	August 3	August 4	51	255
Anomia	Anglo-Saxon Petroleum Co	August 3	August 5	6,751	
Anyo Maru	Toyo Kisen Kaisha	August 4	August 4	36	124
Colombia	Pacific Mail Steamship Co	August 4	August 4	8	
Laura C. Hall	Pacific Metals Corporation	August 4	August 4	12	
Cuba	Pacific Mail Steamship Co	August 5	August 5	19	
San Lomberto	Eagle Oil Transport Co	August 5	August 6	4,898	
Capsa	Anglo-Saxon Petroleum Co	August 8	August 9	7,700	
Mina Brea	Imperial Oil Co	August 5	August 8		6
Laura C. Hall	Pacific Metals Corporation	August 6	August 6		38
Manavi	Pacific Steam Navigation Co	August 8	August 8		6
Chincha	Planet Steamship Co	August 11	August 12	702	
Huasco	South American Steamship Co	August 11	August 12	172	

STEAMSHIP LINES THROUGH THE CANAL AND TO ITS TERMINAL PORTS.

The following are the itineraries of the lines in regular or fairly regular service plying through the Canal, and of those calling at its terminal ports without passing through the Canal. Many vessels other than those employed by these lines pass through the Canal in tramp service. Others are in fairly regular service for oil and mineral companies, etc., but as such vessels are not common carriers their services are not mentioned below.

The name of the line is given first, followed by the ports of its itinerary, given in their order for the outward voyage. Except as otherwise noted the return voyage is made in approximately a reversal of the course for the outward voyage.

In a paragraph which follows the name of the line and the itinerary, are stated the frequency of the service; whether passengers are carried, and, if so, the classes of accommodations offered; the name of the agent on the Isthmus for the line; and the telephone call or calls of the agency. In cases in which the agency has more than one office on the Isthmus the telephone call of the principal office is given first.

The inclusion of Cristobal and/or Balboa in the list of ports of call indicates that the vessels of the line ordinarily discharge or receive cargo and/or passengers at the port named.

The services are classified by principal trade routes, in the following order:

Between the Atlantic Coast of the United States and the Pacific Coast of South America;
Between Europe and the Pacific Coast of South America;
Around South America;
Between Pacific Coast of North America and Atlantic Coast of South America;
Between Europe and the Pacific Coast of Central America;
Between Europe and the Pacific Coast of North America;
Between the Atlantic Terminus of the Canal and the Pacific Coast of South America;
Between the Atlantic Terminus of the Canal and the Pacific Coast of Central and North America;
Between the Atlantic Coast of the United States and Japan, China, Siberia, and the Philippine Islands;
Between the Atlantic Coast of North America and Australia and New Zealand;
Between Europe and Australia and New Zealand;
Between Europe and the Far East;
Around-the-World Service;
United States Intercoastal Trade;
Between Atlantic and Pacific ports of Colombia;
Atlantic Services calling at Cristobal but not passing through the Canal;
Pacific Services calling at Balboa but not passing through the Canal.

It should be borne in mind that many of the services change frequently in minor features, and that any may be changed or discontinued without notice.

The summary follows:

Between the Atlantic Coast of the United States and the Pacific Coast of South America.

Grace Line (*W. R. Grace & Co.*).—New York, Cristobal or Balboa, Callao, Arica, Iquique, Antofagasta, Valparaiso.

Three weeks; *passengers*, 1st class; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

W. R. Grace & Co. (*cargo service*).—New York, Puerto Colombia, Cristobal, Balboa, Buenaventura, Guayaquil, Callao. Calls at Buenaventura and other minor ports are dependent on cargo offerings.

Monthly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

New York and Pacific Line (*W. R. Grace & Co.*).—New York, Cristobal, Balboa, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Monthly, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

South American Steamship Co. (*Compania Sud Americana de Vapores*).—New York, Cristobal, Callao, and Chilean ports, Valparaiso.

Monthly; *passengers*, 1st and 3d classes; United Fruit Co., Cristobal 200, Panama 524.

Pacific Steam Navigation Co. (*Pacific Line*).—New York, Habana, Cristobal, Balboa, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Monthly; *passengers*, 1st and 3d classes; Pacific Steam Navigation Co., Cristobal 202 and 204, Balboa 145, Panama 505.

Pacific Steam Navigation Co.—New York, Cristobal, Balboa, Buenaventura, Tumaco, Esmeraldas, Bahia, Manta, and Guayaquil.

Monthly; cargo only; Pacific Steam Navigation Co., Cristobal 204, Balboa 145, Panama 505.

Panama Railroad Steamship Line.—New York, Port-au-Prince (at times direct), Cristobal, Balboa, Buenaventura, Esmeraldas, Bahia de Caraquez, Manta, Guayaquil, Port Bolivar, Machalilla.

Every 6 weeks, approximately; *passengers*, 1st and 3d classes (3d class in tropics only); Panama Railroad Co., Cristobal 25, Balboa 278.

Isthmian Steamship Lines (*New York–South America Line, United States Steel Products Co.*).—New York, Cristobal, Balboa, Buenaventura, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

New Orleans and South American Line (*Nosa Lines, W. R. Grace & Co.*).—New Orleans, Cristobal, Balboa, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Monthly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

West Coast Line (*Wessel, Duval & Co.*).—New York, Cristobal, Balboa, Callao, Antofagasta, Valparaiso.

Weekly, approximately; cargo only; American Trade Developing Co., Panama 588, Colon 229-B.

Chile Steamship Co.—New York, Arica, Iquique, Antofagasta, Caldera.

Six weeks, approximately; cargo only, and principally cargo for mining companies which own the line; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

American Metals Transport Co.—Atlantic ports of United States (principally Boston, New York or Philadelphia), Callao, Mollendo, Arica, Iquique, Antofagasta and/or Valparaiso. This service is operated by mining companies and does not ordinarily carry outside cargo.

Monthly; cargo only; Atlantic and Pacific Terminals, Inc., Cristobal 346.

Between Europe and the Pacific Coast of South America.

Pacific Steam Navigation Co.—Monthly service of mail and passenger steamers from Liverpool via France, Spain and Habana via the Panama Canal to Callao, Mollendo, Arica, Iquique, Antofagasta and Valparaiso, with a

Two monthly service outward via the Straits of Magellan, making approximately a

Three weekly service of mail and passenger steamers from the Pacific coast of South America via the Panama Canal to Habana, Spain, France, and Liverpool. *Passengers* 1st, 2d, and 3d classes; Pacific Steam Navigation Co., Cristobal 204, Balboa 145, Panama 505.

Pacific Steam Navigation Co.—Forntightly service of cargo steamers, carrying a limited number of 1st and 3d class *passengers*, from British and Continental ports via the Panama Canal to Guayaquil, Peruvian, and Chilean ports, with a

Monthly service outward via the Straits of Magellan and returning via the Panama Canal, making approximately a

Ten-day service from the Pacific coast of South America to British and Continental ports. Pacific Steam Navigation Co., Cristobal 204, Balboa 145, Panama 505.

East Asiatic Co.—Copenhagen, Gothenburg, Christiania, Hamburg, Antwerp, St. Thomas, Cristobal, Balboa, Guayaquil, Callao, Mollendo, Iquique, Antofagasta, Valparaiso, Talcahuano, Corral.

Monthly; *passengers*, 1st class; motorships; United Fruit Co., * Cristobal 200, Panama 524.

Royal Netherlands West India Mail (*Koninklyke West-Indische Maildienst*).—Hamburg, Amsterdam, Rotterdam, Cristobal, Guayaquil, Peruvian and Chilean ports.

Fortnightly; *passengers*, 1st and 3d classes; Royal Netherlands West India Mail, Cristobal 21; Sasso, Fuehring & Co., Panama 682.

La Veloce Line (*Navigazione Italiana a Vapore "La Veloce"*).—Genoa, Marseilles, Barcelona, Teneriffe, Barbados, Trinidad, La Guaira, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Every 30 days, alternating with a cargo steamer; *passengers*, 1st, 2d, and 3d classes; La Veloce Line, Cristobal 51.

"Transatlantica Italiana" and *"Societa Nazionale di Navigazione."*—Genoa, Marseilles, Barcelona, Cadiz, Teneriffe, Trinidad, La Guaira, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal, Balboa, Guayaquil, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Every 30 days; cargo only; Panama Railroad Co., Cristobal 627, Balboa 619.

Compañia Trasatlantica de Barcelona (*Spanish Line*).—Barcelona, Malaga, Valencia, Cadiz, Santa Cruz, Las Palmas in the Canary Islands, San Juan de Porto Rico, Habana, La Guaira, Puerto Cabello, Curaçoa, Puerto Colombia, Cristobal, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta and Valparaiso.

Monthly; *passengers* 1st, 2d, and 3d class; Compañia Trasatlantica de Barcelona, Colon 257.

Hamburg-American Line.—Hamburg, Bremen, Antwerp, Cristobal, and ports in Ecuador, Peru, and Chile, returning via the Canal either to Europe direct or via United States ports.

Monthly; *passengers*, 1st class; Fidanque Bros. & Sons, Panama 666.

Gulf Line (*Nautilus Steam Shipping Co., F. and W. Ritson*).—British and continental ports to Chile, Peru, and Ecuador. Vessels are routed by the Canal or the Strait of Magellan, outward; all return to Europe by way of the Canal. Ports of call are the principal ports on the route.

Approximately every 3 weeks through the Canal outward; returning, approximately weekly; cargo only; C. Fernie & Co., Cristobal 72, Balboa 1428.

Compagnie Generale Transatlantique (*French Line*).—Havre, Antwerp, Hamburg, Bordeaux, Cristobal, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso.

Monthly; cargo only; Cie. Generale Transatlantique (French Line), Cristobal 185.

Societe Francaise d'Armement.—Havre, Valparaiso. This is an irregular service, carrying general cargo outward and usually returning with nitrate.

Approximately 8 weeks; cargo only; Cie. Generale Transatlantique (French Line), Cristobal 185.

Societe Edouard Bureau.—Nantes, Valparaiso. This is a sailing ship service, making ports of call according to cargo.

Irregular sailings, approximately every 3 months; Cie. Generale Transatlantique (French Line), Cristobal 185.

Kosmos Line.—Hamburg, Bremen, Callao, Mollendo, Arica, Iquique, Antofagasta, Coquimbo, Valparaiso.

Weekly; passengers and cargo; American Trade Developing Co., Panama 588, Colon 210-B.

Roland Line.—Hamburg, Bremen, Rotterdam, Buenaventura, Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, Coquimbo, Valparaiso.

Monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Around South America.

As noted in the foregoing section, the Pacific Steam Navigation Company, and the Natuilus Steam Shipping Co. send some of their vessels around South America *making one leg* of the voyage *through the Strait* of Magellan.

Between Pacific Coast of North America and Atlantic Coast of South America.

Pacific-Argentine-Brazil Line (*Swayne & Hoyt, Inc.*)—Seattle, Tacoma, San Francisco, Balboa, Cristobal, Ponce, San Juan, P. R., Para, Pernambuco, Bahia, Rio de Janeiro, Santos, Montevideo, Buenos Aires, returning in reverse order.

Five weeks; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Pacific-Argentine-Brazil Line (*Swayne & Hoyt, Inc.*)—Seattle, Portland, San Francisco, Los Angeles, Balboa, Cristobal, Ponce, San Juan, P. R., Rio de Janeiro, Buenos Aires, returning via Montevideo, Santos, Rio de Janeiro, Cristobal, Balboa, Los Angeles, San Francisco, Portland, Seattle.

Six weeks approximately; cargo and *passengers*, 1st and 3d classes; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Between Europe and the Pacific Coast of Central America.

Cosmos Line.—Hamburg, Cristobal, Puntarenas, Corinto, Amapala, La Union, La Libertad, Acajutla, San Jose de Guatemala, Champerico and Salina Cruz.

Weekly; cargo and *passengers*, 1st and 3d classes; American Trade Developing Co., Panama 588, Colon 210–B.

Hamburg–American Line.—Hamburg, Bremen, Cristobal, Puntarenas, Corinto, Amapala, La Union, La Libertad, Acajutla, San Jose, Champerico, Salina Cruz.

Every three months; cargo only; Fidanque Bros. & Sons, Panama 666.

Roland Line.—Hamburg, Bremen, Puntarenas, Corinto, Amapala, La Libertad, San Jose de Guatemala, Champerico, Salina Cruz.

Monthly; cargo and limited number of passengers; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Between Europe and the Pacific Coast of North America.

East Asiatic Co. (*Acties. det Ostasiatiske Kompagni*).—Copenhagen, Gothenburg, Christiania, Hamburg, Antwerp, St. Thomas, Cristobal, Balboa, Los Angeles, San Francisco, Portland, Tacoma, Seattle, Vancouver, and Victoria.

Monthly; *passengers*, 1st class; motorships; United Fruit Co., ✻Cristobal 200, Panama 524.

Johnson Line (*Rederiaktiebolaget Nordstjernan*).—Gothenburg, Christiania, Cristobal, Balboa, San Pedro, San Francisco, Portland, Tacoma, Seattle, Vancouver.

Approximately 60 days; *passengers*, 1st class; motorships; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

North Pacific Coast Line (*Holland-America Line and Royal Mail Steam Packet Co., joint service*).—Antwerp, Rotterdam, Liverpool, London, Cristobal, Los Angeles San Francisco, Portland, Seattle, Tacoma, Vancouver.

Three-weekly, cargo and passengers; Royal Mail Steam Packet Co., Cristobal 202 and 204, Balboa 145, Panama 505.

Isthmian Steamship Lines (*United States Steel Products Co*).—Liverpool, London, Avonmouth, Cristobal, San Diego, Los Angeles, San Francisco, Portland, Seattle, Tacoma, Vancouver.

Three weeks, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

European-Pacific Line (*American-Hawaiian Steamship Co., United American Lines, Inc.*)—England (London, Liverpool, etc.), Hamburg, Antwerp, Havre, Los Angeles, San Francisco, Astoria, Portland, Seattle, Tacoma, Vancouver, Victoria.

Fortnightly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Norway-Pacific Line.—Christiania, Cristobal, Balboa, San Francisco.

Monthly; cargo only; C. Fernie & Co., Cristobal 72, Balboa 1428.

Harrison Direct Line.—Liverpool, Glasgow, Antwerp, London, Cristobal, Balboa, Los Angeles, San Francisco, Tacoma, Seattle, Victoria, Vancouver.

Monthly; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Compagnie Generale Transatlantique (*French Line*).—Hamburg, Antwerp, Havre, Bordeaux, Cristobal, Corinto, La Union, La Libertad, Acajutla, San Jose de Guatemala, Manzanillo, Mazatlan, Guaymas, San Francisco, Portland, Seattle, Vancouver.

Monthly; cargo only; Cie. Generale Transatlantique (French Line), Cristobal 185.

Furness-Prince Line (*Furness, Withy & Co.*).—London, Liverpool, Continental ports, San Francisco, Seattle, Vancouver, Victoria.

Monthly; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Ellerman's Wilson Line, Ltd. (*Norton, Lilly & Co., general agents*).—London, Hull, Leith, Hamburg, Rotterdam, Antwerp, Havre, San Francisco, Portland, Seattle.

Monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Dollar Line (*Dollar Steamship Line, Mediterranean-Atlantic and Pacific service*).—Genoa, Marseilles, Boston, New York, Los Angeles, San Francisco.

Monthly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Societe Generale de Transportes Maritimes a Vapeur (*Norton, Lilly & Co., general agents*)—Genoa, Marseilles, Barcelona, Valencia, Alicante, La Guaira, Puerto Cabello, Puerto Colombia, Cristobal, Central American and Mexican ports, San Francisco, Portland, Seattle, Vancouver.

Monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Between the Atlantic Terminus of the Canal and Pacific Coast of South America.

Pacific Steam Navigation Co.—Cristobal, Balboa, Tumaco, Esmeraldas, Bahia, Manta, and Guayaquil.

Monthly; *passengers*, 1st and 3d classes; Pacific Steam Navigation Co., Cristobal 204, Balboa 145, Panama 505.

South American Steamship Co. (*Cia. Sud Americana de Vapores, the Chilean Line*).—Cristobal, Balboa, Paita, Eten, Pacasmayo, Salaverry, Callao, Mollendo, Arica, Iquique, Antofagasta, Coquimbo, Valparaiso.

Fortnightly, *passengers*, 1st and 3d classes; United Fruit Co.; *Cristobal 200, Panama 524.

Peruvian Steamship Co. (*Cia. Peruana de Vapores y Dique de Callao, the Peruvian Line*).—Cristobal, Balboa, Buenaventura, Guayaquil, Paita, Eten, Pimentel, Pacasmayo, Salaverry, Chimbote, Callao, Pisco, Mollendo, Ilo.

Weekly; *passengers*, 1st and 3d classes; Panama Railroad Co., Cristobal 627, Balboa 619.

Pacific Metals Transportation Co., Ltd.—Cristobal, Balboa, Buenaventura.

Fortnightly; cargo only; Anglo-American Steamship Agencies, Inc., Cristobal 120, Panama 581.

Between the Atlantic Terminus of the Canal and Central and North America.

Pacific Mail Steamship Co.—Cristobal, Balboa, Puntarenas, San Juan del Sur, Corinto, Amapala, La Union, La Libertad, Acajutla, San Jose de Guatemala, Champerico, Salina Cruz, Acapulco, Manzanillo, San Blas, Mazatlan, Los Angeles, San Francisco.

Every 22 days, approximately; *passengers*, 1st and 3d classes. Pacific Mail Steamship Co., Cristobal 97, Balboa 1279, Panama 900.

Pacific Steam Navigation Co.—Cristobal, Balboa, Puntarenas, San Juan del Sur, Corinto, Amapala, La Union, La Libertad, Acajutla, San Jose de Guatemala, Champerico.

Every 14 days; *passengers*, 1st and 3d classes; Pacific Steam Navigation Co., Cristobal 202 and 204, Balboa 145, Panama 505.

Between the Atlantic Coast of the United States and Japan, China, Siberia, and the Philippine Islands.

American and Oriental Line (Andrew Weir & Co.; Houlder, Weir & Boyd, Inc., agents).—New York, Cristobal, Iloilo, Manila, Shanghai, Manchurian ports, Kobe, and Yokohama, returning via Seattle or San Francisco and the Panama Canal to New York.

Monthly, approximately; cargo only; Payne & Wardlaw, Balboa 504, Cristobal 55.

Barber Lines.—New York (at times Philadelphia), Cristobal, Yokohama, Kobe, Shanghai, Hongkong, Manila, Cebu, Iloilo, Singapore (ports vary according to cargo).

Weekly, approximately; cargo only; Panama Agencies Co.; Cristobal 97, Balboa 1279, Panama 900.

American-Manchurian Line (Norton, Lilly & Co., general agents).—New York, Yokohama, Kobe, Dairen, Shanghai, etc., returning via Suez Canal or via west coast of North America and the Panama Canal.

Approximately monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Osaka Shosen Kaisha.—Yokohama, Kobe, Moji, Hongkong, Singapore, Durban, Cape Town, Santos, Rio de Janeiro, Habana, New Orleans, Habana, Cristobal, Los Angeles, San Francisco, Honolulu, Yokohama, Kobe, Dalny, Shanghai, Hongkong.

Monthly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Osaka Shosen Kaisha.—New York, Los Angeles, San Francisco, Yokohama, Kobe, Dairen, Shanghai, Hongkong.

Monthly, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Kerr Steamship Co.—New York (or Philadelphia, Baltimore, Norfolk, New Orleans, or Galveston), Cristobal, Kobe, Yokohama, Shanghai.

Monthly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

"K" Line (Kokusai Kisen Kaisha, Kawasaki Kisen Kaisha, Kawasaki Dockyard Co., Ltd., Suzuki & Co., general agents).—New York, Cristobal, Yokohama, Kobe.

Three weeks, from New York; monthly from Mobile via Galveston; cargo only; Panama Railroad Co., Cristobal 627, Balboa 619.

Nippon Yusen Kaisha.—New York, Cristobal, Yokohama, Kobe, Moji, Shanghai, Singapore.

Three weeks, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Nippon Yusen Kaisha.—New Orleans, Cristobal, Balboa, Yokohama, Kobe, Shanghai, other Japanese and Chinese ports, according to cargo.

Six weeks; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Toyo Kisen Kaisha.—New York, Habana, Honolulu, Yokohama, Kobe, Shanghai, Manila.

Two months; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Prince Line.—New York, Cristobal, Yokohama Kobe, Shanghai, and varying ports in Siberia, China, the Philippines, and the Straits.

Monthly, approximately; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Tampa Interocean Steamship Co.—Baltimore, New Orleans, Cristobal, Yokohama, Kobe, Shanghai, Hongkong, Manila.

Two months, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Panama-Far East Line (Isthmian Steamship Lines).—New Orleans, Mobile, Cristobal, Yokohama, Kobe, Moji, Shanghai, Hongkong, Manila.

Monthly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Dollar Line.—New York, Cristobal, Honolulu, Shanghai, Hongkong, and ports beyond, returning via Suez or Panama.

Monthly, approximately, outward; returning irregularly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Mitsui & Co.—New York, Philadelphia, Cristobal, San Francisco, Seattle, Yokohama, Kobe.

Monthly, approximately: cargo only; Panama Railroad Co., Cristobal 627, Balboa 619.

Ellerman & Bucknall Steamship Co., Ltd.—New York, Yokohama, Kobe, Dalny, Shanghai. (Vessels sail via either Suez or Panama).

Monthly, approximately, via Panama Canal; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Between the Atlantic Coast of North America and Australia and New Zealand.

United States and Australasia Line.—New York, Cristobal, Auckland, Lyttleton, Timaru, Dunedin, Hobart, Suva, Noumea, Townsville, Rockhampton, Brisbane, Sydney, Melbourne.

Monthly, cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

American and Australian Line (Norton, Lilly & Co., general agents).—New York, Cristobal, Auckland, Dunedin, Hobart, Melbourne, Adelaide, Wellington, Sydney, Brisbane, etc.

Three weeks; cargo only; Wilford & McKay, Inc.; Cristobal 60, Balboa 1176.

Commonwealth and Dominion Line (Cunard Line).—New York, Cristobal, Auckland, Wellington, Lyttleton, Dunedin, Melbourne, Sydney, Adelaide, Fremantle, etc. Vessels of this line proceed by the Panama Canal or the Cape of Good Hope.

Occasionally through the Canal; cargo only; Pacific Steam Navigation Co., Cristobal 203 and 204, Balboa 145, Panama 505.

Canadian Government Merchant Marine, Ltd.—Canadian ports, via New York to New Zealand and Australia.

Monthly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Between Europe and Australia and New Zealand.

New Zealand Shipping Co.—London, Southampton, Kingston, Cristobal, Auckland, Wellington, and other New Zealand ports.

Four weeks for mail ships, with *passengers*, 1st, 2d, and 3d classes; intermediate sailings of cargo ships; Wilford & McKay, Inc., Cristobal 60, Panama 1176.

Shaw, Savill & Albion Line.—London, Southampton, Cristobal, Auckland, Wellington, Dunedin, etc.

Monthly for mail and *passenger* (1st, 2d, and 3d classes) steamers; approximately fortnightly for cargo ships; W. Andrews & Co., Cristobal 55, Balboa 504.

White Star Line (*Oceanic Steam Navigation Co.*).—Liverpool, London, Cristobal, Auckland, Wellington, Sydney, Melbourne, Adelaide, etc. Most of the sailings outward from England are by way of the Cape of Good Hope, but the return voyage is usually made by way of the Canal.

Monthly, approximately, outward through the Canal; returning, approximately every 15 days; *passengers*, 1st, 2d, and 3d classes; W. Andrews & Co., Cristobal 55, Balboa 504.

Messageries Maritimes.—Dunkirk, Havre, Bordeaux, Marseilles, French West Indies, Cristobal, Papeet (Tahiti), Wellington, Noumea (New Calidonia), Fiji Islands, and Samoa.

Two months; *passengers* and cargo; Compagnie Generale Transatlantique (French Line), Cristobal 185.

Commonwealth Government Line.—European ports to Suva, Levuka, Brisbane, Sydney, Melbourne.

Approximately 3 months; cargo only, Payne & Wardlaw, Balboa 504, Cristobal 55.

Commonwealth and Dominion Line (*Cunard Line*).—London, Auckland, Wellington, Sydney, Melbourne, Adelaide, etc.

Monthly, approximately; cargo only; Pacific Steam Navigation Co., Cristobal 203 and 204, Balboa 145, Panama 505.

Federal Steam Navigation Co.—British ports to New York, thence via Canal to New Zealand and Australia; returning to New York or to Great Britain. (*See* paragraph in preceding section, headed *American and Australian Line.*)

Between Europe and the Far East.

East Asiatic Co.—This company sends an occasional vessel through the Canal from Scandinavian ports to the Far East, either direct or by way of ports on the west coast of the United States and/or Canada; and occasional vessels return from the Far East to Europe by way of the Panama Canal.

Irregular; *passengers*, 1st class, occasionally; United Fruit Co., *Cristobal 200, Panama 524.

Swedish East Asiatic Co.—This company has an irregular service between Scandinavian ports and the Far East, using both the Suez and the Panama Canals according to conditions.

Irregular; cargo only; Panama Agencies Co.; Cristobal 97, Balboa 1279, Panama 900.

Around-the-World Service.

Barber Lines.—Some of the vessels of this company, plying from New York, Boston, Philadelphia, or New Orleans to the Orient, continue the voyage into an around-the-world journey, returning to the United States Atlantic Coast through either the Suez or the Panama Canal.

Irregular; cargo only; Panama Agencies Co.; Cristobal 97, Balboa 1279, Panama 900.

United States Intercoastal Trade.

Pacific Mail Steamship Co.—New York, Baltimore, Norfolk, Habana, Cristobal, Balboa, Corinto, La Libertad, Acajutla, San Jose de Guatemala, Los Angeles, Oakland, San Francisco.

Every 17 days, approximately; *passengers*, 1st class; cargo; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Pacific Mail Steamship Co., freight service.—New York, Philadelphia, Norfolk, Baltimore, Los Angeles Harbor, San Francisco, Portland, Astoria, Seattle, and Tacoma.

Every 15 days, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Isthmian Steamship Lines (*United States Steel Products Co.*).—New York, Cristobal, San Diego, Los Angeles, San Francisco, Portland, Seattle, Vancouver.

Ten days with approximately a monthly sailing for Honolulu; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Isthmian Steamship Lines (*United States Steel Products Co.*).—Baltimore, Cristobal, Los Angeles, San Francisco, Portland, Seattle.

Ten days; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Luckenbach Line (*Luckenbach Steamship Co.*).—New York, Boston, Philadelphia, Cristobal, San Diego, Los Angeles, San Francisco.

Weekly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Luckenbach Line (*Luckenbach Steamship Co.*).—New Orleans, Mobile, Galveston, Houston, Cristobal, Los Angeles, San Francisco, Oakland, Astoria, Portland, Seattle, Tacoma.

Semimonthly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

American-Hawaiian Line (*Panama Canal Line, United America Lines, Inc., with Williams, Dimond & Co., general Pacific Coast agents*).—Boston, New York, Philadelphia, Cristobal, Los Angeles, San Francisco, Portland, Seattle, Tacoma.

Weekly (fortnightly via Philadelphia); cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Argonaut Steamship Co.—New York and other Atlantic ports to Pacific ports.

Weekly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Garland Steamship Corp.—New York, Norfolk, and Pacific ports as inducements offer.

Weekly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Transmarine Corp.—Port Newark (New York Harbor) direct to Los Angeles, San Francisco, Oakland, Seattle, Tacoma.

Weekly; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Nawsco Line (*North Atlantic and Western Steamship Co. in connection with the Pacific Steamship Co., the Admiral Line.*)—Portland, Me., Boston, New York, Philadelphia, Cristobal, San Diego, Los Angeles, San Francisco, Portland, Oreg., Seattle, Tacoma, Vancouver.

Fortnightly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

Pacific Caribbean Gulf Line (*Swayne & Hoyt, agents.*)—New Orleans, Mobile, Cristobal, Balboa, Los Angeles, San Francisco, Portland, Tacoma, Seattle.

Monthly, approximately; cargo only; Wilford & McKay, Inc., Cristobal 60, Balboa 1176.

C. & T. Intercoastal Line (*Crowell & Thurlow*).—Boston, New York, Philadelphia, Baltimore, Los Angeles, San Francisco, Portland, Seattle.

Twice monthly; cargo only; Payne & Wardlaw, Cristobal 55, Balboa 504.

Munson Line (*Munson Steamship Co.*).—New York, Philadelphia, Baltimore, New Orleans, San Diego, Los Angeles, San Francisco, according to offerings.

Two months, approximately; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Williams Line (*Williams Steamship Co., Inc.*).—New York, Philadelphia, Baltimore, Norfolk, Cristobal, Los Angeles, San Francisco, Oakland, Portland, Seattle, Tacoma.

Twice monthly; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

United States Army Transport Line.—New York, Cristobal, San Francisco, and return. This service transports Army forces and supplies and carries other United States Government employees when accommodations are available, but is not a common carrier.

Occasionally; Department Transportation Officer, ✻Balboa 1210.

United States Navy Transport Line.—New York, Hampton Roads, San Diego, Los Angeles, San Francisco, Honolulu, Manila. This service transports Navy forces and supplies and carries other Government employees when accommodations are available, but is not a common carrier.

Alternate sailings at about 6 weeks intervals for Far East and for California only, Commandant, 15th Naval District, Balboa 1094.

Between Atlantic and Pacific Ports of Colombia.

Cia. Costanera Colombiana de Transportes.—Santa Marta, Puerto Colombia, Cartagena, Cristobal, Buenaventure and Tumaco.

Approximately fortnightly; *passengers* and cargo; Panama Railroad Co., Cristobal 627, Balboa 619.

Atlantic Services Calling at Cristobal but not Passing through the Canal.

United Fruit Co.—New Orleans, Cristobal via Habana returning via Tela (Honduras) and Habana.

Weekly, *passengers*, 1st class (and 3d class to Tela and Habana only); United Fruit Co., ✻Cristobal 200, Panama 524.

United Fruit Co.—New Orleans, Habana, Cristobal; returning, Cristobal to New Orleans direct.

Weekly; *passengers*, 1st class; United Fruit Co., ✻Cristobal 200, Panama 524.

United Fruit Co.—New York, Kingston, Cristobal, Cartagena, Barranquilla, Puerto Colombia; returning, Cristobal, Kingston, New York.

Fortnightly; *passengers*, 1st class (and 3d class to Colombian ports and Kingston only); United Fruit Co., ✻Cristobal 200, Panama 524.

United Fruit Co.—New York, Habana, Cristobal; returning, Cristobal, Habana, New York.

Weekly; *passengers*, 1st and 3d classes (3d class to Limon and Habana only); United Fruit Co., ✻Cristobal 200, Panama 524.

Summary.—The sailings of the United Fruit Co. from Cristobal, are summarized as follows: To New Orleans direct, every Thursday; to New Orleans via Tela and Habana, every Thursday; to New York via Habana, every Sunday; to Cartagena, Puerto Colombia, and Santa Marta, every Thursday; to Port Limon, Costa Rica, every Wednesday; to New York via Kingston, fortnightly on Thursday.

Panama Railroad Steamship Line.—New York, Port-au-Prince, possibly other Haitian ports, Cristobal; returning, Cristobal, Port-au-Prince, other Haitian ports, New York. Occasionally the voyage is made direct.

Every 10 days; *passengers*, 1st and 3d classes (3d class between Cristobal and Haiti); Panama Railroad Co., Cristobal 25, Balboa 278.

Panama Railroad Steamship Line.—Norfolk to Cristobal direct; returning, Cristobal to Norfolk direct. This is a line of colliers, serving the coaling plants of The Panama Canal.

Fortnightly; cargo only; Panama Railroad Co., Cristobal 627, Balboa 619.

Royal Netherlands West India Mail (Koninklyke West-Indische Maildienst).—Hamburg, Amsterdam, Dover, Boulogne sur Mer, Barbados, Trinidad, La Guaira, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal, Port Limon, Cristobal, Puerto Colombia, Curaçao, Puerto Cabello, La Guaira, Barbados, Plymouth, Havre, and Amsterdam, (Dover, Boulogne sur Mer, and Plymouth for passengers and mail only).

Fortnightly; *passengers*, 1st, 2d, and 3d classes; to intermediate ports also deck passengers are accepted; Royal Netherlands West India Mail, Cristobal 21; Sasso, Fuehring & Co., Panama 682.

Compagnie Generale Transatlantique (French Line).—Havre, Saint Nazaire, Bordeaux, Santander, Guadeloupe, Martinique, Trinidad, La Guaira, Puerto Colombia, Cristobal; returning in reverse order.

Fortnightly; *passengers*, 1st, 2d, and 3d classes; Compagnie Generale Transatlantique, Cristobal 185.

Elders & Fyffes, Ltd.— Bristol, Kingston, Port Limon, Cristobal; returning, Cristobal, Kingston, Bristol.

Fortnightly, *passengers*, 1st class; United Fruit Co., *Cristobal 200, Panama 524.

Leyland Line.—Liverpool, Barbados, Trinidad, Puerto Cabello, La Guaira, Puerto Colombia, Cartagena, Cristobal, New Orleans, Liverpool.

Twice monthly; *passengers*, 1st class; W. Andrews & Co., Cristobal 55, Balboa 504.

Harrison Line.—Liverpool, Barbados, Trinidad, Puerto Cabello, La Guaira, Puerto Colombia, Cartagena, Cristobal, New Orleans, Liverpool.

Monthly; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Harrison and Leyland Lines, jointly.—Liverpool, Barbados, Trinidad, La Guaira, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal; returning, Cristobal, New Orleans, Liverpool.

Fortnightly; cargo only; W. Andrews & Co., Cristobal 55, Balboa 504.

Hamburg-American Line.—Hamburg, Antwerp, Puerto Plata, La Guayra, Puerto Cabello, Curaçao, Puerto Colombia, Cartagena, Cristobal, Port Limon, Puerto Barrios, Livingston, Port Limon, Cristobal, Puerto Colombia, Curaçao, Puerto Cabello, La Guayra and European ports.

Steamers arrive at Cristobal from Europe about the 16th of the month and returning from Central America about the 30th. Cargo only; Fidanque Bros. & Sons, Panama 666.

New Orleans and South American Steamship Co. (Nosa Lines, W. R. Grace & Co.).—New Orleans, Habana, Porto Rican ports, Trinidad, Guadeloupe, Cristobal; returning, Cristobal to New Orleans direct.

Monthly, approximately; cargo only; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

United States Army transport line.—New York, San Juan, P. R., Cristobal. This service transports Army forces and supplies and carries other United States Government employees when accommodations are available, but is not a common carrier. Itineraries are alternated so that one transport sails fromNew York directly to Panama and returns to New York via Porto Rico, next transport then sails from New York to Panama via Porto Rico and returns to New York direct.

Monthly; Department Transportation Officer, *Balboa 1210.

Pacific Services Calling at Balboa but Not Passing through the Canal.

Toyo Kisen Kaisha.—Hongkong, Moji, Kobe, Yokohama, Honolulu, San Francisco, Los Angeles, Salina Cruz, Balboa, Callao, Mollendo, Arica, Iquique, Antofagasta, Huasco, Valparaiso; returning in reverse order.

Five weeks, approximately; *passengers*, 1st, 2d, and 3d classes; Panama Agencies Co., Cristobal 97, Balboa 1279, Panama 900.

Chungwha Navigation Co.—Hongkong, Adelaide, Melbourne, Sydney, Wellington, Tahiti, Balboa, Callao, Mollendo, Arica, Iquique, Antofagasta, Valparaiso, Tahiti, Wellington, Sydney, Melbourne, Adelaide, Hongkong.

Two months; *passengers*, 1st, 2nd and 3d classes; Fat & Co., Panama 19.

Latin-America Line.—Portland, Seattle, Tacoma, San Francisco, Los Angeles, Balboa, Callao, Valparaiso (intermediate ports according to demand).

Monthly, approximately; cargo only; Anglo-American Steamship Agencies, Inc., Cristobal 120, Panama 581.

General Steamship Corporation.—Vancouver, Seattle, Portland, San Francisco, Los Angeles, Balboa, Buenaventura, Guayaquil, Talara, Paita, Chicama, Salaverry, Callao, Mollendo, Arica, etc. (Ports of call according to demand.)

Monthly; cargo only; Anglo-American Steamship Agencies, Inc., Cristobal 120, Panama 581.

National Navigation Company of Panama.—Panama City to ports of Panama on Pacific Coast. Sailings are usually from Panama but calls for heavy cargo are made at Balboa.

Weekly; *passengers*, 1st and 3d classes; National Navigation Co., Panama 1068.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective August 15, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.30
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.15
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balbor Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Notaries Public in the Canal Zone.

The following is a list of the Notaries Public commissioned in the Canal Zone as of August 15, 1923. The list gives the name, where stationed, and the date of expiration of commission:

BALBOA.

Adams, R. H., Balboa shops, August 18, 1925.
Dryden, Geo. A., Balboa storehouse, October 8, 1923.
Hyde, W. H., Port Captain's office, March 28, 1926.
Illwitzer, P. G., Balboa storehouse, October 11, 1923.
Kalar, J. D., Port Captain's office, April 13, 1926.
Lefever, John E., Port Captain's office, February 28, 1925.
Smith, Walter R., Balboa storehouse, September 4, 1925.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 272, October 28, 1924.
Boggs, W. B., Administration Building, room 262, August 4, 1925.
Buehler, Geo. H., Administration Building, room 201, April 19, 1924.
McNamara, J. W., Administration Building, room 301, October 3, 1925.
Shaeffer, L. E., Administration Building, room 206, April 6, 1926.
Sims, Walter H., Quarry Heights, December 1, 1924.
Taylor, R. G., Administration Building, room 343, April 19, 1924.
Wang, Frank H., Administration Building, room 303, April 29, 1926.
Walker, J. J., Administration Building, room 237, July 27, 1924.

ANCON.

Boyd, Oscar S., Municipal Division, July 30, 1923.
Erwin, Wm. G., Land Agent's office, December 30, 1924.
Sheibley, F. H., District Court, November 1, 1923.
Williams, H. E., Tivoli Annex, January 10, 1924.

COROZAL.

Gill, Jospeh H., Armament office, December 9, 1925.
Grimm, G. L., Corozal hospital, June 28, 1926.

PEDRO MIGUEL.

Holzapfel, A. F., Dredging Division, August 10, 1926.
Norris, R. N., Municipal Division, June 30, 1924.

GATUN.

Daniels, W. L., Lighthouse Sub-Division, March 25, 1924.
Ford, Stanley R., district quartermaster, August 19, 1925.
Scarborough, W. W., clubhouse, December 21, 1923.
Malone, P. L., Station Agent, April 12, 1924.

MOUNT HOPE.

Jones, Norman C., Cold storage plant, November 30, 1925.

CRISTOBAL.

Campbell, J. S., District Court, January 28, 1926.
Earle, L. H., American Foreign Banking Corporation, January 9, 1924.
Flood, Arthur, Customs office, November 15, 1925.
Crawford, John J., Port Captain's office, September 26, 1925.
Thornton, H. O., local freight house, December 6, 1925.
Livengood, J. F., Commissary Division, May 17, 1925.
MacSparren, E. S., Receiving and Forwarding Agency, December 1, 1924.
Mitchell, J. A., customs office, March 31, 1925.
Page, Courtney K., American Foreign Banking Corporation, August 24, 1924.
Rabbitt, D. F., Commissary Division, October 11, 1923.
Cotton, Charles, coaling plant, March 20, 1926.

Toll Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies availble for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station	Leave on the hour and half hour.
Administration Building	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary	Leave 10 minutes and 40 minutes after the hour.
Balboa shops	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa shops	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary	Leave 20 minutes and 50 minutes after the hour.
Administration Building	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station	Arrive on the hour and half hour.

Schedule of the Ancon-Balboa Bus Line.

Leave Ancon clubhouse at 3.45 p. m., and every 30 minutes thereafter until 10.45 p. m.

Leave Balboa at 3.30 p. m., and every 30 minutes thereafter until 11 p. m.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.45 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Sale of Oil Drums.

The Panama Canal offers for sale 300 drums which have been used for handling crude oil, larvacide, etc., at a price of $1 each, without surcharge, f. o. b. Cristobal Storehouse, where these drums are located. Arrangements for purchase may be made with the Storekeeper, Supply Department, Cristobal, or the General Storekeeper, Balboa.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners, forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 4.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
August 7	San Benito	United Fruit Co.	Boston via Habana.
August 7	Ulua	United Fruit Co.	New York via Habana.
August 7	Cartago	United Fruit Co.	New Orleans via Habana.
August 7	Ulysses	Panama Railroad Steamship Line.	Norfolk.
August 8	Carrillo	United Fruit Co.	New York via Kingston.
August 7	El Cano	Soc. Commercial de Oriental.	Curacao.
August 9	Abangarez	United Fruit Co.	Bocas del Toro.
August 9	Sixaola	United Fruit Co.	Colombian ports.

*DEPARTURES.

Date.	Vessel.	Line.	For—
August 8	San Benito	United Fruit Co.	Boston via wayports.
August 8	Ulua	United Fruit Co.	Port Limon.
August 9	El Cano	Soc. Commercial de Oriental.	Curacao.
August 9	Cartago	United Fruit Co.	New Orleans via wayports.
August 9	Carrillo	United Fruit Co.	Colombian ports.
August 9	Sixaola	United Fruit Co.	New York via Kingston.
August 9	Abangarez	United Fruit Co.	New Orleans.
August 9	Panama	Panama Railroad Steamship Line.	New York via Haiti.

PORT OF BALBOA.

August 8	Capsa [1]	Anglo-Saxon Petroleum Co.	San Francisco.	August 5	Anomia	Anglo-Saxon Petroleum Co.	San Pedro.
				August 5	Anyo Maru	Toyo Kisen Kaisha	Hongkong.
				August 6	San Lamberto	Anglo-Mexican Petroleum Co.	San Pedro.
				August 8	Talamanca [16]	United Fruit Co.	Panaman.
				August 10	Capsa	Anglo-Saxon Petroleum Co.	San Pedro.

[1] Tanker. [16] Yacht. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., August 22, 1923. No. 2.

Traffic by Trade Routes in Past Fiscal Year.

Over two-fifths of the cargo handled through the Panama Canal during the fiscal year ending June 30, 1923, was in the United States intercoastal trade.

The trade route next in tonnage of cargo during the year was that between the United States and the west coast of South America, carrying slightly over one-tenth of the total.

A close third was between the United States and the Far East, amounting to 9.8 per cent of all the cargo.

Other principal routes, in order were between the west coast of South America and Europe, 8.9 per cent; between the west coast of the United States and Europe, 7.1 per cent; between the west coast of Canada and Europe, 5.7 per cent. Of the other routes, none carried as much as 5 per cent of the total.

The traffic by trade routes, in directions, showing ships, net tonnage, cargo tonnage, and percentage of total cargo, is given in detail in the following table:

Commercial Traffic Through the Panama Canal During the Fiscal Year 1923, Classified by Leading Trade Routes.

	No. of ships.	Panama Canal net tonnage.	Tons of cargo.	Percentage of total cargo.
Between east coast of United States and west coast of South America:				
Atlantic to Pacific	234	917,282	275,313	1.4
Pacific to Atlantic	259	1,050,941	1,779,210	9.2
Totals	493	1,968,223	2,054,523	10.6
Between east coast of United States and Far East:				
Atlantic to Pacific	217	1,146,761	1,466,013	7.5
Pacific to Atlantic	69	386,525	443,272	2.3
Totals	286	1,533,286	1,909,285	9.8
United States coastwise:				
Atlantic to Pacific	775	4,129,656	2,608,307	13.4
Pacific to Atlantic	622	3,403,811	5,460,246	27.9
Totals	1,397	7,533,467	8,068,553	41.3
Between west coast of United States and Europe:				
Atlantic to Pacific	142	690,715	375,700	1.9
Pacific to Atlantic	134	646,320	1,020,090	5.2
Totals	276	1,337,035	1,395,790	7.1
Between west coast of South America and Europe:				
Atlantic to Pacific	183	802,011	486,952	2.5
Pacific to Atlantic	205	884,826	1,263,034	6.4
Totals	388	1,686,837	1,749,986	8.9
Between Australasia and Europe:				
Atlantic to Pacific	75	518,317	415,861	2.1
Pacific to Atlantic	55	312,912	306,404	1.6
Totals	130	831,229	722,265	3.7

Commercial Traffic Through the Panama Canal During the Fiscal Year 1923, Classified by Leading Trade Routes.—Continued.

	No. of ships.	Panama Canal net tonnage.	Tons of cargo.	Percentage of total cargo.
Between east coast of United States and Australasia:				
Atlantic to Pacific	79	418,059	462,057	2.4
Pacific to Atlantic	23	101,744	72,534	0.4
Totals	102	519,803	534,591	2.8
Between east coast of Mexico and west coast of South America:				
Atlantic to Pacific	27	138,994	257,280	1.3
Pacific to Atlantic	20	94,678	.....	0.0
Totals	47	233,672	257,280	1.3
Between east coast of Mexico and east coast of United States:				
Atlantic to Pacific	8	37,436	.....	0.0
Pacific to Atlantic	31	180,267	300,528	1.5
Totals	39	217,703	300,528	1.5
Between Cristobal, C. Z. and west coast of South America:				
Atlantic to Pacific	91	165,276	36,290	0.2
Pacific to Atlantic	98	167,761	70,613	0.4
Totals	189	333,037	106,903	0.6
Between east coast of United States and west coast of Canada:				
Atlantic to Pacific	28	134,375	168,140	0.8
Pacific to Atlantic	55	258,504	347,407	1.8
Totals	83	392,879	515,547	2.6
Between Europe and west coast of Canada:				
Atlantic to Pacific	56	299,098	230,331	1.2
Pacific to Atlantic	111	587,491	885,670	4.5
Totals	167	886,589	1,116,001	5.7
Between Cristobal, C. Z., and west coast of Central America:				
Atlantic to Pacific	33	27,533	23,607	0.1
Pacific to Atlantic	32	26,774	24,825	0.1
Totals	65	54,307	48,432	0.2
Between Cristobal, C. Z., and west coast of United States:				
Atlantic to Pacific	21	49,881	21,685	0.1
Pacific to Atlantic	24	57,181	48,563	0.2
Totals	45	107,062	70,248	0.3
Between Balboa, C. Z., and east coast of South America:				
Atlantic to Pacific	6	32,577	29,561	0.1
Pacific to Atlantic	2	10,987	.....	.....
Totals	8	43,564	29,561	0.1
Between West Indies and west coast of South America:				
Atlantic to Pacific	13	48,017	.....	.....
Pacific to Atlantic	15	61,325	108,755	0.5
Totals	28	109,342	108,755	0.5
Between West Indies and west coast of United States:				
Atlantic to Pacific	10	45,324	.....	.....
Pacific to Atlantic	8	22,786	39,603	0.2
Totals	18	68,110	39,603	0.2
Miscellaneous trade routes and sailings:				
Atlantic to Pacific	127	471,501	229,162	1.2
Pacific to Atlantic	79	278,140	310,862	1.6
Totals	206	749,641	540,024	2.8
Total Atlantic to Pacific	2,125	10,072,813	7,086,259	36.2
Totals, Pacific to Atlantic	1,842	8,532,973	12,481,616	63.8
Total commercial traffic through Canal during fiscal year ending June 30, 1923	3,967	18,605,786	19,567,875	100.0

Double-Barrel Lockages.—Radio Report in Advance of Arrival.

THE PANAMA CANAL,
DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., August 18, 1923.

MEMORANDUM FOR STEAMSHIP AGENTS:

Due to increase in traffic, The Panama Canal will try out the plan of passing two ships simultaneously through the Pacific Locks, one in each lock chamber, beginning daily at 6.45 a. m. about September 15, 1923. This will be successful if steamship lines cooperate with the Canal and have enough ships in Balboa anchorage to keep the Pacific Locks supplied for early morning lockages. This double-barrel lockage plan is expected to expedite all shipping, in that the Pacific Locks should be nearly clear of northbound traffic by the time southbound traffic begins to arrive from Gatun Locks.

If shipping bound to the Atlantic does not arrive at Balboa sea buoys early enough to keep the Pacific Locks busy, beginning at 6.45 a. m., it may become necessary to hold over until the next day some of the ships that arrive at Balboa sea buoys between noon and 2 p. m.

It is provided in Rules and Regulations for the Operation and Navigation of The Panama Canal, paragraph 40, page 14, that ships must report by radio their probable time of arrival. This radio should be sent to Port Captains, Balboa or Cristobal, at least 24 hours before arrival, in order to permit efficient planning to expedite transits. Some ships have not been sending this message to the Port Captain. In future, if it becomes necessary to delay any traffic due to lack of radio information of hour of arrival, the first ships to suffer will be those that fail to furnish the required information as to hour of arrival.

No radio tolls are charged for messages on Canal business.

Please inform your principals immediately of the contents of this memorandum.

A. W. HINDS, *Marine Superintendent.*

Relative Proportion of Transits, Net Tonnage, and Cargo Tonnage, by Nationality for Fiscal Years 1921, 1922, 1923.

The following tabulation shows traffic through the Canal for the past 3 years, segregated among the leading maritime nations and listing the percentage of number of transits, net tonnage, and cargo tonnage of each nationality to the total traffic through the Canal:

Nationality.	Percentage of transits.			Percentage of tonnage.			Percentage of cargo.		
	1923.	1922.	1921.	1923.	1922.	1921.	1923.	1922.	1921.
United States	50.3	40.1	41.8	54.8	43.5	42.5	56.4	45.6	44.5
British	26.8	34.1	33.6	26.3	33.3	34.8	25.1	30.6	32.2
Japanese	4.1	6.9	4.7	4.0	7.6	5.4	4.8	9.5	6.5
Norwegian	3.7	4.1	4.8	3.2	3.4	4.8	3.6	3.7	5.5
Dutch	2.7	2.4	1.7	2.8	2.6	2.2	2.5	2.7	1.9
German	2.3	1.3	0.7	1.8	1.1	0.6	1.7	1.1	0.6
French	1.4	1.9	1.5	1.4	1.7	1.4	1.2	1.3	1.1
Danish	1.6	1.9	2.1	1.3	2.0	2.1	1.6	2.5	2.8
Peruvian	2.0	2.2	2.1	1.2	1.4	1.4	0.6	0.6	0.9
Chilean	1.7	1.9	2.2	1.1	1.3	1.4	0.4	0.4	0.5
Swedish	0.8	1.3	0.9	0.7	1.1	1.0	0.9	1.3	1.1
Remaining	2.6	1.7	3.9	0.8	1.0	2.4	0.7	0.7	2.3
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending August 18, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Acajutla	Pacific Steam Navigation Co	August 12	August 13	5	
Alvarado	Swayne & Hoyt	August 12	August 12		
La Habra	Wilhelm Wilhelmsen	August 13	August 15	8,888	
Easterner	United States and Australia Line	August 14	August 15	113	
Theodore Roosevelt	Fred Olsen & Co	August 16	August 16	724	
Cuba	Pacific Mail Steamship Co	August 17	August 17		7
Acasta	Anglo-Saxon Petroleum Co	August 17	August 19	6,950	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 18, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chalister	11	15.17	12	6.25	12	13.23	12	14.50	British	Chalister Steamship Co	425.6	54.0	24.7	Philadelphia	Jen Sau	General	8,180	6,963	5,311
Laguna [2]	11	17.10	12	7.25	12	13.46	12	14.55	British	Pacific Steam Navigation Co	420.5	54.2	20.0	Glasgow	Valparaso	General	3,419	7,085	4,586
Trontolite [1]	12	3.05	12	8.00	12	15.54	12	16.55	British	Imperial Oil Co	420.0	57.0	19.0	Montreal	Talara	Ballast		7,240	4,713
Deroche [1]	12	3.45	12	8.45	12	16.52	12	18.40	American	Union Oil Co	435.0	56.0	22.0	Baltimore	Los Angeles	Ballast		7,452	5,199
M. F. Elliott [1]	12	6.19	12	9.10	12	17.38	12	18.40	American	Standard Oil Co	425.0	57.2	19.0	New York	San Pedro	Ballast		7,481	4,946
Cacique	12	13.30	12	13.40	12	20.28	12	21.28	American	Grace Line	394.4	52.3	27.0	Baltimore	Puget Sound	General	6,200	6,652	4,913
Algonquin [1]	12	16.12	13	6.37	13	14.21	13	15.26	American	Standard Transportation Co	453.0	56.0	18.0	Providence	San Pedro	Ballast		7,602	5,337
West Greylock	13	4.10	13	7.26	13	15.56	13	22.45	American	Seas Shipping Co	430.7	54.3	29.0	Baltimore	Honolulu	General, steel	10,130	7,946	5,698
Trelevan	13	7.15	13	7.50	13	16.12	13	17.40	British	Hain Steamship Co	397.4	54.9	22.0	Montreal	Dunedin	General	5,000	6,102	4,331
Canadian Constructor	13	7.33	13	8.33	13	16.41	14	10.45	British	Canadian Govt. Mer. Marine	430.0	56.2	18.6	Montreal	Adelaide	General	4,000	7,680	5,494
Marore [1]	13	7.50	13	9.30	13	18.20	14	2.25	American	Ore Steamship Co	550.3	72.2	22.0	Baltimore	Cruz Grande	Ballast		15,551	4,297
Garfield	12	20.40	13	10.05	13	18.56	14	5.46	American	Grace Line	299.0	45.0	17.6	New York	Buenaventura	General	2,110	3,256	2,010
Montreal Maru	13	9.45	13	10.15	13	19.50	14	7.53	Japanese	Kawasaki Kisen Kaisha	405.0	53.0	14.0	Boston	Pisagua	Ballast		7,034	5,081
Hulaco [1]	13	9.52	13	11.17	13	19.50	14	19.10	American	Associated Oil Co	435.6	56.2	17.4	Mobile	San Pedro	Ballast		7,426	5,128
Muskogee [1]	13	9.57	13	11.35	13	20.49	13	21.53	American	Standard Oil Co	450.9	57.9	20.0	Baltimore	San Pedro	Ballast		7,574	5,193
Urubamba	13	20.23	13	12.05	13	20.56	13	21.53	Peruvian	Peruvian Line	381.2	41.1	18.0	Cartagena	Callao	Cattle	138	4,803	2,951
Thomas H. Wheeler [1]	13	13.05	13	13.15	13	21.34	13	22.45	American	Standard Oil Co	425.0	57.0	17.0	Charleston	San Pedro	Ballast		7,481	4,769
Ruby [3]	11	.....	13	.....	13	12.45	.....	.....	American	E. J. Hooper	.....	.....	.....	Cristobal	Gatun Lake	Ballast		1	1
Negada	13	13.25	14	6.35	14	13.44	14	14.50	German	Kosmos Line	410.0	51.0	22.3	Hamburg	Guayaquil	General	3,140	6,402	4,463
Paris City	13	14.00	14	7.15	14	14.52	14	20.36	British	W. R. Smith & Sons	412.2	55.0	13.0	Danzig	San Francisco	Ballast		6,673	4,764
Commercial Pathfinder	13	15.30	14	8.05	14	17.31	14	23.48	American	Moore & McCormack	395.0	49.0	23.0	New York	Los Angeles	General	6,758	5,220	3,734
Lewis Luckenbach	13	20.25	14	7.51	14	15.49	15	1.39	American	Luckenbach Line	496.0	68.2	28.0	Boston	San Francisco	General	11,657	11,487	8,762
Hugoton [1]	14	2.30	14	8.30	14	16.45	14	22.45	American	C. D. Mallory & Co	434.8	56.2	20.8	Baton Rouge	San Pedro	Ballast		7,429	5,175
Santa Cecilia	14	6.15	14	8.35	14	17.35	15	3.29	American	Planet Line	404.6	53.0	26.6	New York	Vancouver	Steel, general	7,287	6,745	4,562
Cederic	14	7.20	14	9.50	14	18.06	14	22.26	Norwegian	Ardmore Steamship Co	338.5	48.0	17.6	New York	San Antonio	General, coal	2,321	4,113	3,071
Kjellbergen	11	14.57	14	10.15	14	19.48	14	21.00	Norwegian	Henriksson	272.0	40.3	12.6	Norfolk	Portland	Ballast		2,274	1,533
Havre Maru	14	8.48	14	10.20	14	18.16	14	19.45	Japanese	Osaka Shosen Kaisha	407.3	50.8	24.0	New York	Korea	([4])	4,694	6,234	4,496
Canada Maru	14	10.20	14	11.10	14	18.58	15	3.08	Japanese	Osaka Shosen Kaisha	400.0	51.8	23.10	Buenos Aires	Kobe	([5])	2,550	5,999	4,101
Ashworth	14	11.22	14	12.00	14	20.40	15	5.25	British	Dalgliesh Steamship Co	400.0	52.3	17.0	Genoa	San Francisco	Ballast		5,732	3,991
Calgarolite [1]	14	12.45	14	12.55	14	21.39	14	22.44	British	Imperial Oil Co	463.3	60.2	21.8	New York	San Pedro	Ballast		8,491	6,096
Mongolian Prince	14	13.15	14	13.35	14	22.06	14	23.49	British	Prince Line, Ltd	423.5	56.0	25.4	Ellsmere Port	San Pedro	Bags of cement	7,633	6,460	4,735
Sunbeam [1]	14	17.18	15	6.22	15	16.00	15	20.39	American	Sun Oil Co	429.3	59.2	19.6	New York	Los Angeles	Ballast		7,709	5,481
Delaware Sun [1]	14	22.35	15	7.20	15	16.50	15	21.24	American	Sun Oil Co	480.5	66.0	22.0	Philadelphia	San Pedro	Ballast		9,402	6,586

[1] Tanker. [2] Motor ship. [3] Launch. [4] Oil, machinery, and general. [5] Cotton, bones, hides, etc.

H. M. Flagler [1]	14	22.45	15	7.40	15	16.38	15	17.40	American...	Standard Oil Co.	461.6	60.0	17.0	Baltimore	San Pedro	Ballast		8,450	6,089
Mexican	15	1.50	15	8.35	15	17.42	16	4.05	American...	American-Hawaiian Line	372.3	57.2	29.0	Baltimore	San Pedro	General	10,700	9,258	6,874
Munaires	15	3.30	15	8.37	15	18.07	16	1.27	American...	Munson Line	370.0	53.1	23.6	New York	Seattle	General	6,125	5,577	4,225
Tregonell	15	6.15	15	9.45	15	18.43	15	20.23	British	Hain Steamship Co.	400.0	52.5	21.0	New York	Bluff Harbor	General	3,540	5,776	4,051
John Worthington [1]	15	7.40	15	10.35	15	19.26	15	20.41	American...	Standard Oil Co.	464.0	60.0	19.0	New York	San Pedro	Ballast		8,491	6,069
Imlay [1]	15	8.40	15	10.50	15	20.23	16	0.10	American...	Malston Co.	425.8	57.0	27.0	Baton Rouge	San Pedro	Ballast		7,218	4,959
Orient	15	12.00	15	12.25	15	20.33	16	3.00	American...	Oriental Navigation Co.	376.4	52.3	25.0	Norfolk	San Diego	Coal	6,974	5,455	3,879
Iocoma [1]	14	18.25	15	13.03	15	21.07	16	6.48	British	International Petroleum Co.	248.0	42.0	12.0	Bermuda	Talara	Ballast		1,761	1,045
Tacoma	15	6.50	15	13.15	15	22.08	16	1.27	British	Standard Transportation Co.	440.5	58.7	21.1	Hamburg	Talara	Ballast		8,338	5,147
Norlina	15	13.35	15	13.45	15	22.50	15	23.50	American...	Garland Line	385.0	51.1	24.0	Baltimore	Los Angeles	General	5,057	5,466	4,181
Santa Luisa	15	15.45	16	6.14	16	14.00	16	16.10	American...	Grace Line	360.2	51.6	24.7	New York	Talcahuano	General	2,707	5,694	3,975
Seaweed [6]	14	13.20	16	6.15	16	15.52	...	...	British	H. J. Symonds	51.4	11.0	8.0	Plymouth	Melbourne	Ballast		20	20
Centurion	15	18.38	16	7.20	16	15.56	16	17.00	British	Harrison Line	400.0	52.0	23.0	Liverpool	San Francisco	General	4,750	5,738	4,161
Quail [7]	...	...	16	7.30	16	16.33	...	...	American...	U. S. Navy	180.0	35.6	...	Cristobal	Balboa	Towing barge	...	...	...
Theodore Roosevelt [8]	15	22.20	16	7.40	16	16.30	17	11.45	Norwegian	Norway-Pacific Line	425.5	55.2	28.0	Christiansand	Honolulu	General	9,400	7,593	5,637
Neponset	15	22.55	16	8.33	16	17.26	16	21.35	American...	Elder & Mittnacht (S. B.)	434.3	57.7	21.0	Philadelphia	Los Angeles	General	4,925	7,893	5,621
I. C. White [1]	16	7.05	16	9.00	16	17.33	16	18.25	American...	Pan-American Petroleum Co.	429.3	59.2	20.0	Boston	San Pedro	Ballast		7,925	5,840
Huasco	12	21.25	16	9.56	16	18.24	16	19.19	Chilean	Chilean Line	380.0	44.0	22.3	Cristobal	Valparaiso	General	302	4,552	3,182
Manuel Calvo	15	12.10	16	10.40	16	19.09	...	...	Spanish	Spanish Steamship Line	419.0	45.0	19.6	Barcelona	Valparaiso	General	236	5,996	3,897
Californian [8]	16	12.25	16	12.30	16	20.00	16	21.00	American...	American-Hawaiian Line	445.1	59.8	22.0	Boston	San Pedro	General	6,300	8,567	6,020
Sumanco	16	13.35	16	13.42	16	20.48	16	22.00	American...	Transmarine Corporation	324.0	46.0	19.0	New York	San Pedro	General	3,200	3,984	2,612
Cuba	6	15.30	17	6.00	17	13.34	17	19.10	American...	Pacific Mail Steamship Co.	307.7	42.2	22.9	Cristobal	San Francisco	General	2,310	3,429	2,206
Denver [9]	15	10.35	17	6.25	17	13.27	...	...	American...	U. S. Navy	308.0	44.0	17.6	Cristobal	Balboa	...	...	...	...
Bethelridge [1]	16	19.00	17	7.20	17	15.27	...	...	American...	Walker & Daly (S. B.)	431.0	59.2	21.0	New York	San Pedro	Ballast		7,819	5,076
Agwilake [1]	16	19.20	17	8.10	17	15.50	17	20.46	American...	Atlantic Gulf & W. I. S. S. Co.	468.3	62.7	19.0	Boston	San Pedro	Ballast		9,802	6,957
Chilore [1]	16	22.40	17	8.40	17	16.26	17	22.14	American...	Ore Steamship Co.	549.0	72.0	21.0	Baltimore	Cruz Grande	Ballast		14,538	9,348
Clement Smith [1]	17	4.05	17	9.20	17	16.47	17	17.50	American...	Oil Transport Co.	431.0	59.2	19.0	New York	San Pedro	Ballast		8,097	5,332
Cape Cod [1]	17	4.50	17	9.55	17	17.22	17	24.00	American...	Cape Steamship Co.	425.8	57.0	23.0	New York	San Pedro	Ballast		7,218	4,955
Hellenic	17	6.53	17	10.25	17	18.06	17	19.10	Swedish	Transatlantic Steamship Co.	380.0	52.0	18.0	New York	Adelaide	General	5,703	5,504	3,972
Oroya	17	6.25	17	13.28	17	20.16	18	3.00	British	Pacific Steam Navigation Co.	547.3	62.6	22.8	Liverpool	Valparaiso	General	2,615	13,133	9,064
District of Columbia [1]	16	18.30	18	6.15	18	13.23	18	14.40	American...	Walker & Daly (S. B.)	431.0	59.2	20.10	Fall River	Los Angeles	Ballast		8,097	5,431
Monfalcone [10]	27	18.05	18	6.30	18	16.37	...	...	American...	A. J. Higgins Lumber & Export.	282.4	45.8	25.4	New Orleans	Seattle	(11)	3,737	2,505	2,301
Almagro	17	9.00	18	7.25	18	15.36	18	17.55	British	Pacific Steam Navigation Co.	303.4	43.0	17.9	New York	Guayaquil	General	1,719	2,878	1,714
Laurel Branch	17	16.00	18	7.25	18	14.32	18	15.45	British	F. and W. Ritson	360.0	46.0	18.1	London	Guayaquil	General	1,661	4,182	3,047
Agwisea [1]	17	13.55	18	8.05	18	15.58	18	20.06	American...	Agwi Steamship Co.	468.3	62.7	16.6	New York	San Pedro	Ballast		9,802	6,961
Hagood [1]	18	5.50	18	8.53	18	16.53	19	5.20	American...	Cities Service Co.	435.6	56.2	21.0	Boston	San Pedro	Ballast		7,426	5,094
Agwipond [1]	18	11.13	18	11.20	18	17.56	18	19.04	American...	Ward Line	468.3	62.7	18.0	Baltimore	San Pedro	Ballast		9,810	7,018

[1] Tanker. [6] Schooner. [7] Tug. [8] Motor ship. [9] Cruiser. [10] Barkentine [11] Shells, rosin, and lumber.

THROUGH THE CANAL.—PACIFIC TO ATLANTIC

Mayebashi Maru	12	2.30	12	7.57	12	15.20	12	18.10	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Kobe	New York	General	10,027	8,012	5,749
Pennsylvania Sun [1]	12	5.56	12	8.58	12	16.15	12	16.15	American...	Sun Oil Co.	480.5	66.0	24.0	Los Angeles	New York	Crude oil	12,868	9,325	6,383

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chincha	11	13.10	12	12.28	12	19.22	12	19.22	American	Planet Line	403.0	52.3	24.0	San Francisco	Baltimore	General	5,300	6,872	4,973
Huasco	11	17.00	12	14.53	12	21.25	16	9.56	Chilean	South American Line	380.0	44.0	21.0	Talcahuano	Cristobal	General	56	4,552	3,182
Alvarado	12	10.00	12	15.09	12	22.28	13	21.50	British	Pacific Steam Navigation Co.	303.0	43.0	16.6	Guayaquil	New York	General	1,168	2,844	1,748
Walter Jennings [1]	11	19.00	13	7.11	13	15.45	13	15.45	American	Standard Oil Co. of New Jersey	499.2	68.0	30.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
Acajutla	12	13.20	13	7.48	13	16.53	.....	.....	British	Pacific Steam Navigation Co.	215.7	33.5	14.0	Champerico	Cristobal	Coffee, hide	138	1,273	706
U. S. S. Denver	.....	.....	13	8.40	13	16.50	13	18.10	American	U. S. Navy	292.0	44.0	17.0	Balboa	High seas	.....	.....	.....	.....
Davanger [1]	12	17.40	13	9.04	13	17.33	13	17.33	Norwegian	Westfal, Larsen & Co.	425.0	56.8	26.6	San Pedro	Tampico	Crude oil	9,866	7,125	4,916
Dixie Arrow [1]	13	3.00	13	9.18	13	18.15	13	18.15	American	Standard Transportation Co.	468.3	62.7	28.0	San Pedro	New York	Crude oil	12,500	9,744	7,140
A. C. Bedford [1]	13	6.00	13	10.08	13	18.43	13	18.43	American	Standard Oil Co.	500.0	68.0	30.0	San Pedro	New York	Crude oil	15,263	10,896	7,688
Carolinas	13	7.30	13	10.22	13	19.40	13	19.40	American	Watermann Steamship Co.	338.8	48.0	22.5	Grays Harbor	New York	Lumber	4,100	4,171	2,827
David McKelvy [1]	13	1.20	13	11.35	13	21.05	13	21.05	American	Tidewater Oil Co.	430.0	59.2	26.6	San Pedro	New York	Crude oil	11,000	7,629	5,393
Thomas P. Beal	13	18.40	14	6.58	14	15.12	14	15.12	American	Crowell & Thurlow	394.1	55.1	26.5	Seattle	New York	Lumber, general	8,000	7,047	5,100
James McGee [1]	14	3.00	14	8.03	14	17.18	14	17.18	American	Standard Oil Co. of New Jersey	499.1	68.2	29.0	San Pedro	New York	Crude oil	14,800	10,964	7,909
Mantaro	14	4.25	14	9.59	14	17.35	20	9.50	Peruvian	Peruvian Line	367.3	46.0	16.6	Callao	Cartagena	General	779	4,838	2,959
San Gaspar [1]	14	5.30	14	10.02	14	18.35	14	18.35	British	Eagle Oil Transport Co., Ltd.	530.2	68.5	30.5	San Pedro	Tampico	Crude oil	16,918	13,422	9,350
Santa Gertrudis	14	6.30	14	10.29	14	19.30	14	19.30	British	Anglo-Mexican Petroleum Co.	238.6	36.6	16.0	Anacortes	Puerto Mexico	Lumber	949	1,491	835
El Montecillo	14	5.30	14	13.08	14	21.00	15	9.55	Spanish	Cia. Generale Navigacion	301.0	48.9	21.0	Tocopilla	Bilboa, Spain	Nitrate	4,956	3,464	2,310
Panaman	14	6.30	14	13.15	14	20.08	14	20.08	American	American-Hawaiian Line	407.7	53.7	19.0	Tacoma	Boston	General	2,740	7,097	5,028
Hesperos	14	12.45	14	13.32	14	23.15	15	0.20	Norwegian	E. I. Dupont de Nemours & Co.	398.8	54.1	25.4	Mejillones	Baltimore	Nitrate of soda	8,100	5,693	4,230
Surailco	14	14.40	15	6.54	15	14.23	15	14.45	American	Transmarine Corporation	324.0	46.2	23.6	Anacortes	Port Newark	([12])	4,461	3,984	2,612
Easterner	14	11.15	15	8.01	15	16.35	15	16.35	American	U. S. & Australasia Lines (S. B.)	385.0	51.0	15.6	Sydney	New York	([13])	300	5,945	4,561
Huanchaco	14	18.00	15	8.44	15	17.10	15	18.05	British	Pacific Steam Navigation Co.	390.6	50.2	20.4	Talcahuano	Liverpool	General	3,180	.....	.....
Harold Walker [1]	14	21.25	15	9.07	15	17.28	15	17.28	American	Pan-American Pet. & Transp. Co	430.0	48.2	27.0	Los Angeles	New Orleans	Crude oil	10,770	6,973	4,658
Agwisun	14	23.40	15	10.04	15	18.15	15	18.15	American	Ward Line	429.3	59.2	26.6	San Pedro	New York	Crude oil	10,000	7,612	5,402
F. O. Barstow [1]	14	22.00	15	10.16	15	18.55	15	18.55	American	Standard Oil Co. of New Jersey	500.0	68.2	30.0	San Pedro	New York	Crude oil	14,300	10,530	7,604
Craftsman	15	4.00	15	11.19	15	19.55	15	21.10	British	T. & G. Harrison	455.4	56.2	25.0	Vancouver	Liverpool	General	8,465	7,769	5,486
Frederic Ewing [1]	15	9.35	15	12.04	15	20.32	15	20.32	American	Huasteca Petroleum Co.	435.0	56.0	28.0	San Pedro	New Orleans	Crude oil	11,000	7,465	5,176
Nora [1]	15	9.45	15	12.10	15	21.18	15	21.20	American	Pan-American Pet. & Transp. Co.	467.6	62.7	29.0	San Pedro	New Orleans	Crude oil	14,000	9,918	7,468
Bryon D. Benson [1]	15	6.15	15	13.06	15	22.28	15	22.28	American	Tidewater Oil Co.	465.4	60.2	27.6	San Pedro	New York	Crude oil	12,000	8,546	6,095
Beckenham	15	9.55	15	13.18	15	23.40	15	23.48	British	Watts, Watts & Co.	370.0	50.6	25.0	San Antonio	La Palice	Nitrate	6,700	4,979	3,452
William Perkins	14	0.00	15	13.48	16	0.45	16	3.35	American	Garland Steamship Corporation	409.8	54.2	25.0	Grays Harbor	New York	Lumber, coffee	7,086	6,757	4,919
Rochester	.....	.....	16	7.02	16	14.30	17	0.45	American	U. S. Navy	384.0	64.9	27.1	Balboa	San Domingo	.....	.....	.....	.....
Eurana [1]	15	13.45	16	8.05	16	15.35	16	15.35	American	International Mercantile Marine	419.5	56.3	26.6	San Pedro	New York	Crude oil	9,950	6,989	4,976
Paul Luckenbach	15	14.35	16	8.21	16	16.45	16	16.45	American	Luckenbach Line	471.1	59.2	20.0	Los Angeles	New York	General	4,000	9,027	6,539
W. S. Rheem [1]	15	15.00	16	8.58	16	17.30	17	17.30	American	Standard Oil Co. of California	500.0	68.2	30.0	Los Angeles	Baltimore	Crude oil	14,990	11,224	78,60

[1] Tanker.

[12] Lumber, salmon, and copper.

[13] Skins, pelts, wool, live animals, and general.

Charlton Hall	15	23.30	16	9.44	16	18.25	16	20.30	American	U. S. Steel Products Co	400.0	50.0	26.0	Iquique	Baltimore	Nitrate of soda	7,300	5,714	4,161
J. A. Moffett, Jr. [1]	16	0.20	16	10.10	16	19.08	16	19.08	American	Standard Oil Co. of New Jersey	499.2	68.0	30.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
New Britain	16	3.40	16	11.07	16	20.10	16	20.10	American	Oriental Navigation Co	386.8	52.2	22.6	Seattle	Providence	Lumber	5,542	5,684	4,081
San Jeronimo [1]	16	6.20	16	11.15	16	21.35	16	23.40	British	Anglo-Mexican Petroleum Co	525.5	66.5	29.0	San Pedro	Tampico	Crude oil	15,066	12,157	8,393
Samuel Q. Brown [1]	16	10.05	16	13.23	16	22.37	16	22.37	American	Tidewater Oil Co	424.4	58.7	26.0	San Pedro	New York	Crude oil	10,000	7,333	5,246
President Harrison	15	22.00	16	15.07	17	0.30	17	2.40	American	Swayne & Hoyt, Inc	502.1	62.2	28.0	Seattle	Buenos Aires	General	5,216	12,031	8,495
Alaskan	16	15.00	17	7.15	17	14.00	17	14.00	American	American-Hawaiian Line	470.1	57.2	20.0	Los Angeles	Charleston	General	2,870	9,250	6,816
Albion Star	16	20.30	17	7.57	17	15.50	17	16.55	British	Blue Star Line, Ltd	450.0	58.5	28.0	Nanking	New York	(14)	7,379	8,317	5,531
Quail			17	8.10	17	17.05			American	U. S. Navy	180.0	35.6		Balboa	Cristobal	Towing raft			
Santa Malta	17	8.20	17	9.09	17	16.40	17	16.40	American	Pacific Mail Steamship Co	405.0	53.7	22.0	Seattle	Baltimore	Lumber, general	4,834	6,766	4,809
Teno	17	6.20	17	9.32	17	17.20	18	0.23	Chilean	South American Line	421.8	56.0	24.6	Valparaiso	New York	General	3,290	7,758	4,672
Galveston			18	6.50	18	14.50	20	7.25	American	U. S. Navy	292.0	44.0		Balboa	Cristobal				
San Francisco	17	18.30	18	7.28	18	16.05	18	16.05	American	Isthmian Steamship Line	405.0	52.0	21.0	San Pedro	London	General	6,638	6,186	4,449
Cold Harbor	18	4.00	18	8.25	18	15.40	18	15.40	American	N. Atlantic & Western S. S. Co	390.0	54.2	22.5	Seattle	Philadelphia	Lumber, general	5,400	6,167	4,290
Mina Brea [1]	18	5.30	18	8.52	18	18.40	18	22.05	British	Imperial Ltd	360.3	49.2	25.0	Talara	New York	Crude naphtha	5,350	4,437	2,717
Orita	18	12.05	18	13.02	18	19.49	19	4.07	British	Pacific Steam Navigation Co	485.4	58.2	26.6	Talcahuano	Liverpool	General	4,679	9,936	6,561
Shreveport [1]	18	14.15	18	14.51	18	23.20	19	3.00	American	Walker & Daly (S. B.)	435.0	56.0	28.6	San Pedro	Fall River	Crude oil	9,269	7,411	5,103

[1] Tanker. [14] Frozen products and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 12	Atenas	United Fruit Co	New Orleans via Habana.	August 12	Atenas	United Fruit Co	Bocas del Toro.
August 12	Ulua	United Fruit Co	Port Limon.	August 12	Ulua	United Fruit Co	New York via Habana.
August 12	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	August 14	Ulysses	Panama Railroad Steamship Line	Norfolk.
August 14	San Bruno	United Fruit Co	Boston via Habana.	August 15	Venezuela	Royal Netherlands W. I. Mail	Port Limon.
August 14	Toloa	United Fruit Co	New York via Habana.	August 15	Toloa	United Fruit Co	Port Limon.
August 14	Venezuela	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.	August 16	Tivives	United Fruit Co	Colombian ports.
August 14	Macoris	French Line	Bordeaux and wayports.	August 16	Heredia	United Fruit Co	New Orleans via wayports.
August 14	Philadelphian	Leyland Line	Liverpool via wayports.	August 16	San Bruno	United Fruit Co	Boston via wayports.
August 14	Heredia	United Fruit Co	New Orleans via Habana.	August 16	Atenas	United Fruit Co	New Orleans.
August 15	St. Mihiel	U. S. Army	New York via wayports	August 16	Philadelphian	Leyland Line	New Orleans.
August 15	Tivives	United Fruit Co	New York via Kingston.	August 17	Macoris	French Line	Bordeaux and wayports.
August 16	Atenas	United Fruit Co	Bocas del Toro.	August 18	St. Mihiel	U. S. Army	New York and Port Rico.
August 16	Shenandoah	Texas Oil Co	Port Arthur.	August 18	Camito	Elders & Fyffes, Ltd	Kingston.
August 17	Venezuela	Royal Netherlands W. I. Mail	Port Limon.	August 18	Venezuela	Royal Netherlands W. I. Mail	Amsterdam and wayports.
August 18	Camito	Elders & Fyffes, Ltd	Port Limon.				

PORT OF BALBOA.

August 13	La Hebra	Union Oil Co. of California	Port San Luis.	August 15	La Habra	Union Oil Co. of California	Port San Luis.
August 14	Jeptha	General Steamship Corporation	Huasco, Chile.	August 14	Jeptha	General Steamship Corporation	Tacoma.
August 17	Acasta	Anglo-Saxon Petroleum Co	Los Angeles.				

*Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 18, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Atenas	United Fruit Co	August 12	August 12	116	87
Garfield	Grace Line	August 12	August 13	513	106
Cristobal	Panama Railroad Steamship Line	August 12	August 19	2,459	1,236
Ulua	United Fruit Co	August 12	August 12	38	95
Acajutla	Pacific Steam Navigation Co	August 13		143	
Mantaro	Peruvian Line	August 14		1,569	
Macoris	French Line	August 14	August 17	239	79
Venezuela	Royal Netherlands W. I. Mail	August 14	August 15	391	
San Bruno	United Fruit Co	August 14	August 16	7	206
Toloa	United Fruit Co	August 14	August 15	198	27
Heredia	United Fruit Co	August 14	August 16	1,162	216
Philadelphian	Leyland Line	August 14	August 16	620	62
St. Mihiel	U. S. Army	August 15	August 18	857	
Tivives	United Fruit Co	August 15	August 16	73	151
Santa Luisa	Grace Line	August 15	August 16	73	17
Manuel Calvo	Spanish Line	August 15	August 17	141	
Atenas	United Fruit Co	August 16	August 16	16	
Shenandoah	The Texas Co	August 16	August 19	9,452	
Venezuela	Royal Netherlands W. I. Mail	August 17	August 17	11	
Almagro	Pacific Steam Navigation Co	August 17	August 18	42	276
Oroya	Pacific Steam Navigation Co	August 17	August 17	64	11
Orita	Pacific Steam Navigation Co	August 18	August 18	43	

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Official Circulars.

Acting Governor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 18, 1923.

To all concerned—Effective August 21, 1923, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., Engineer of Maintenance, will be Acting Governor.

JAY J. MORROW,
Governor.

Acting President, Panama Railroad Company.

PANAMA RAILROAD COMPANY.,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., August 20, 1923.

To all concerned—Effective August 21, 1923, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., Second Vice-President, will perform such duties of the President as relate to the operations of the company on the Isthmus.

JAY J. MORROW,
President Panama Railroad Company.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., August 29, 1923. No. 3.

Traffic for Fiscal Year 1923, by Nationality of Vessels.

On pages 56, 57 and 58 of this issue is shown a summary of the commercial traffic through the Panama Canal for the first 9 fiscal years of its operation, compiled by nationality of vessels:

VESSELS OF UNITED STATES REGISTRY FORM MORE THAN HALF OF YEAR'S TRAFFIC.

During the fiscal year ending June 30, 1923, there was an increase in transits of vessels of practically all of the leading maritime nations. The greatest increase, however, was in vessels of United States registry which in point of transits, net tonnage and cargo tonnage exceeded the total traffic of vessels of all other nationalities combined. Of the total of 3,967 vessels, the United States vessels were 1,994.

The net tonnage and cargo tonnage of vessels of United States registry were more than double their quantity in any preceding fiscal year.

LARGE INCREASE IN UNITED STATES INTERCOASTAL TRADE.

The rapid growth of the United States intercoastal traffic during the past fiscal year will be seen when compared with that of the two preceding fiscal years, as shown herewith:

	Atlantic to Pacific.			Pacific to Atlantic.		
	1921.	1922.	1923.	1921.	1922.	1923.
Number of vessels	177	306	775	141	249	652
Panama Canal net tonnage	783,420	1,524,190	4,129,646	632,118	1,258,464	3,403,811
Cargo tonnage	698,429	1,288,075	2,608,307	649,697	1,274,452	5,460,246

UNITED STATES VESSELS IN FOREIGN TRADE.

During the past fiscal year, transits of American vessels engaged in foreign trade exceeded those of the preceding year, but did not reach the volume of foreign traffic through the Canal in 1921. In the following tabulation, transits of United States vessels through the Canal during the past 3 years are shown, segregated between intercoastal and foreign trade.

Fiscal year.	Intercoastal traffic.			Foreign traffic.		
	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.
1921	322	1,430,977	1,372,388	888	3,430,784	3,790,637
1922	555	2,782,654	2,562,527	540	2,188,855	2,387,992
1923	1,397	7,533,467	8,068,553	597	2,675,069	2,986,603

GERMAN VESSELS THROUGH CANAL ALSO SHOW LARGE INCREASE.

During the fiscal year ending June 30, 1921, the number of German vessels passing through the Canal was 19. During the next fiscal year, the number of German vessels practically doubled, there being 37; while for 1923, the number of transits increased to 90, or almost 5 times the number in 1921.

During 1922, German vessels ranked 11th in point of tonnage through the Canal while in 1923 German tonnage ranked 6th.

CANAL WORK IN JULY.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of July, 1923:

BALBOA HEIGHTS, C. Z., August 25, 1923.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of July, 1923:

NUMBER OF TRANSITS.

The number of commercial vessels transiting the Canal, the quantity of cargo carried and the amount of revenue therefrom collected in tolls, in the month of July were the greatest of any month during the operation of the Canal to date.

The total commercial transits during the month numbered 474, which exceeds by 55 the former record of 419 commercial transits in May, 1923. In addition to the commercial transits, there were 9 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 18 transits of Government vessels on which no tolls were paid, making the total transits for the month 501, or an average of 16.16 per day. This is 20 less transits than for the month of March, 1923, when 521 vessels transited the Canal, of which only 409, however were commercial vessels.

Tolls for the month aggregated $2,124,410.32 on the 474 commercial vessels and $19.25 on the 9 launches, making a total of $2,124,429.57 or an average of $68,529.99 per day.

The average daily number of commercial transits was 15.29 as compared with 13.90 in June and 13.52 in May, 1923.

The total number of vessels and craft of all kinds transiting the Canal during the month of July, 1923 as compared with July, 1922, and July, 1921, is shown in the following table:

	July, 1923.	July, 1922.	July, 1921.
Commercial vessels	474	251	206
Noncommercial vessels, Army and Navy	18	14	28
Launches, etc. (under 20 tons measurement)	9	2	3
Total vessels and craft through Canal	501	267	237

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	6	5	11
Pedro Miguel	25	25	50
Miraflores	23	23	46

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month to the end of July during the calendar years 1922 and 1923:

Month.	Number vessels.		Panama Canal net tonnage.		Cargo tonnage.		Tolls.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January	210	352	846,516	1,610,692	807,298	1,591,932	847,767.55	1,505,285.55
February	212	326	886,535	1,529,547	838,074	1,563,278	866,266.18	1,423,954.21
March	234	409	975,811	1,988,192	960,089	1,940,928	956,726.76	1,827,718.44
April	230	404	974,833	2,007,690	1,046,047	2,187,145	953,256.11	1,878,938.15
May	243	419	1,032,816	2,128,414	1,158,507	2,265,083	1,015,057.37	1,972,216.04
June	228	417	970,713	2,035,902	977,478	2,096,446	932,290.42	1,898,043.80
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	1,094,127.42	2,124,410.32
Totals	1,608	2,801	6,815,095	13,610,464	6,998,593	13,982,596	6,665,491.81	12,630,566.51

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vesselsi n commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 7 months of the present calendar year over the corresponding period of the past calendar year has been 74.2 per cent in point of number of vessels, 99.7 per cent in Panama Canal net tonnage, 99.8 per cent in cargo tonnage, and 89.5 per cent in tolls.

The following is a summary of commercial traffic in July, 1923, as compared with July, 1922, and July, 1921, and the average month's traffic for the fiscal year, 1923:

	July, 1923.	July, 1922.	July, 1921.	Average per month for fiscal year 1923.
Number of vessels	474	251	206	331
United States equivalent tonnage	1,856,501	897,770	652,439	1,247,208
Panama Canal net tonnage	2,310,027	1,127,871	810,613	1,550,482
Registered gross tonnage	2,956,850	1,419,754	1,022,802	1,969,412
Registered net tonnage	1,865,014	900,399	650,368	1,240,808
Tolls	$2,124,410.32	$1,094,127.42	$804,503.11	$1,459,016.63
Tons of cargo carried	2,337,784	1,211,100	708,982	1,630,656

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for fiscal year 1923.
	July, 1923.	July, 1922.	July, 1921.	
Number of transits	15.29	8.1	7.4	10.87
Panama Canal net tonnage	74,517	36,383	26,149	50,975
Tolls	$68,529.36	$35,294.43	$25,951.71	$47,967.67
Tons of cargo carried	75,412	39,068	26,096	53,611

From the foregoing it will be seen that the traffic in July, 1923, as compared with July, 1922, increased as follows: Number of commercial transits, 88.8 per cent; Panama Canal net tonnage, 104.8 per cent; tolls, 94.2 per cent, and cargo, 93.0 per cent.

AVERAGE TONNAGE, TOLLS AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls and cargo per vessel transiting the Canal during the month of July, 1923, as compared with July, 1922, and July, 1921, are shown in the following tabulation:

	Average per vessel.		
	July, 1923.	July, 1922.	July, 1921.
United States equivalent net tonnage	3,917	3,577	3,167
Panama Canal net tonnage	4,874	4,493	3,935
Registered gross tonnage	6,238	5,656	4,965
Registered net tonnage	3,935	3,587	3,157
Tolls	$4,481.88	$4,359.07	$3,905.35
Tons of cargo (including vessels in ballast)	4,995	4,825	3,441
Tons of cargo (laden vessels only)	6,369	5,288	3,961

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of July for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
July, 1920	10	32,599	20,797	9	38,241	36,438
July, 1921	19	101,924	60,997	14	79,477	91,991
July, 1922	31	155,758	150,379	25	126,894	153,052
July, 1923	120	634,141	277,428	108	780,824	997,468

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-seven vessels of the United States Shipping Board transited the Canal during the month of July, 1923; of these, 16 were employed in the United States intercoastal trade. Twelve of the 27 vessels were tankers and 15 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of July for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
July, 1921	12	67,851	29,918	12	60,804	82,767	24	128,655	112,685
July, 1922	9	48,271	40,739	11	56,504	58,429	20	104,775	99,168
July, 1923	14	69,605	36,777	13	65,560	104,641	27	135,165	141,418

ORIGIN AND DESTINATION OF TONNAGE.

The following statement shows the origin and destination of all tonnage passing through the Canal during the month of July, 1923, by principal geographical areas, as compared with July, 1922, and July, 1921; the figures represent the net tonnage of vessels as determined by the Panama Canal rules of measurement:

	July, 1923.	July, 1922.	July, 1921.
Origin, Pacific-bound tonnage.			
East coast of United States	913,294	360,012	221,318
Europe (including British Isles)	214,935	150,518	124,108
East coast of Mexico	14,478	23,293	23,167
Cristobal, C. Z.	23,425	23,046	24,507
East coast of South America	12,620	4,241	622
Miscellaneous	28,706	13,121	9,329
Totals	1,207,458	574,231	403,051
Destination, Pacific-bound tonnage.			
West coast of United States	750,468	220,844	163,992
West coast of South America	193,425	116,533	74,267
Australasia	95,788	56,599	58,078
Far East	102,121	122,025	68,998
Canada, west coast	44,899	50,923	26,711
West coast of Mexico and Central America	20,757	7,307	11,005
Totals	1,207,458	574,231	403,051
Origin, Atlantic-bound tonnage.			
West coast of United States	658,548	216,403	174,412
West coast of South America	262,850	148,207	100,367
Australasia	51,827	65,136	70,124
Far East	44,554	62,230	41,084
Canada, west coast	71,959	54,773	19,410
West coast of Mexico and Central America	12,831	6,891	2,165
Totals	1,102,569	553,640	407,562
Destination, Atlantic-bound tonnage.			
East coast of United States	811,738	281,005	137,143
Europe (including British Isles)	200,966	220,608	205,690
East coast of Mexico	23,617	15,542	23,123
Cristobal, C. Z.	28,737	20,508	28,770
East coast of South America		4,914	9,159
Miscellaneous	37,511	11,063	3,677
Totals	1,102,569	553,640	407,562

TOLLS.

Under the present dual method of assessing tolls, the revenue from this source during the month of July, 1923, was $2,124,410.32. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively throughout as a basis for collecting tolls, the revenue from tolls would have been increased by $384,508.88, distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$41,588.34	$29,242.60	$70,830.94
Chilean	4,247.65	5,509.65	9,757.30
Ecuadorian	1.08		1.08
Danish	3,364.25	1,341.60	4,705.85
Dutch	2,671.10	8,641.60	11,312.70

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
French	$2,709.70	$3,275.00	$5,984.70
German	7,965.70	3,795.35	11,761.05
Italian	686.85	1,753.80	2,440.65
Japanese	8,428.65	5,882.10	14,310.75
Norwegian	3,689.20	1,384.75	5,073.95
Panaman	.....	.78	.78
Peruvian	3,015.25	4,665.00	7,680.25
Spanish	841.55	1,471.60	2,313.15
Swedish	8,067.45	1,856.25	9,923.70
United States	73,352.35	155,063.40	228,415.75
Totals	160,626.96	223,881.92	384,508.88

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged, as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	$52,641.63	$130,471.50	$183,113.13
United States foreign trade	18,253.42	20,643.80	38,897.22
United States, Canal Zone trade	617.35	370.75	988.10
Foreign trade	1,839.95	3,577.35	5,417.30
Totals	73,352.35	155,063.40	228,415.75

Of the additional $384,508.88 tolls that would have been assessed by using exclusively the Panama Canal rules of measurement, $12,630 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in July, 1923, is shown in the following table, segregated by nationality of vessels; laden cargo vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, July, 1923.
British	1.00	1.29	1.13
Chilean	.21	.31	.26
Colombian	.78	1.84	1.21
Danish	1.63	1.89	1.70
Dutch	.59	1.53	1.39
French	.71	1.63	1.27
German	.69	1.56	1.04
Italian	.23	.84	.63
Japanese	.74	1.66	1.16
Norwegian	.84	1.60	1.26
Peruvian	.10	.64	.42
Spanish	.04	.01	.02
Swedish	1.55	1.45	1.53
United States	1.21	1.62	1.50
Average ratio, July, 1923	1.05	1.53	1.35
Average ratio, July, 1922	1.13	1.25	1.19
Average ratio, July, 1921	.69	1.20	.94

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.42	1.63	1.02
United States and South America	.33	1.77	1.15
United States and Europe	.64	1.74	.93
United States and Far East	1.13	1.13	1.13
Europe and South America	.59	1.33	1.03
Europe and Australasia	.91	.56	.75
Europe and Canada	1.02	1.55	1.34
Cristobal and South America	.17	.36	.26
United States and Australasia	1.11	.63	1.04
United States and Canada	1.68	1.03	1.16

Cargo moving through the Canal in July, 1923, totaled 2,337,784 long tons. This was nearly double the amount in July, 1922, which was 1,211,100 tons. There was 690,032 tons passing from Atlantic to Pacific ports as compared with 542,212 in July, 1922, and 1,647,752 tons of cargo passing from Pacific to Atlantic ports, as compared with 668,688 tons in July, 1922. This is an increase in the Pacific-to-Atlantic cargo tonnage of approximately 245 per cent.

Mineral oils made up approximately 55 per cent of the total cargo passing from the Pacific to the Atlantic, with a total of 914,248 tons, as compared with 70,692 tons in July, 1922. Lumber passing through the Canal in July, 1923, from Pacific to Atlantic ports amounted to 137,097 tons, as compared with 107,181 tons in July, 1922.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit, and while incomplete are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	July, 1923.	July, 1922.	July, 1921.
Atlantic to Pacific.			
Manufactured goods:			
Iron and steel	162,437	126,641	52,574
Railroad material	11,009	7,444	8,222
Machinery	26,024	17,095	6,043
Textiles and miscellaneous	60,760	9,963	7,175
Mineral oils:			
Crude petroleum	9,982	35,043	14,491
Lubricating oil	10,387	8,590	.....
Refined	43,979	69,457	15,635
Metals, various	7,055	15,437	7,683
Coal and coke	15,091	25,258	8,258
Cotton	6,957	5,760	26,083
Ammonia	12,396	1,027	.....
Automobiles	4,605	3,227	76
Cement	38,228	2,446	1,871
Paper	3,688	5,109	1,574
Other and general	277,434	209,915	108,755
Totals	690,032	542,412	258,440
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	832,517	23,353	.....
Lubricating oil	27	14,897	.....
Refined	81,704	32,442	1,194
Nitrates	185,080	47,149	2,605
Lumber	137,097	107,181	31,699
Barley	16,079	28,600	27,780
Borax	4,953	5,333	202
Canned goods	28,886	27,243	21,078
Coffee	3,967	5,647	6,675
Cold storage	10,691	6,820	4,314
Metals, various	35,928	18,698	9,529
Ores, various	107,506	54,258	6,387
Phosphates	.....	6,600	7,500
Rice	21,778	1,029	.....
Sugar	8,169	35,411	48,394
Wheat	41,601	137,737	99,267
Wool	6,626	13,497	14,030
Other and general	125,143	102,793	169,888
Totals	1,647,752	668,688	450,542

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of July, 1923, was published in THE PANAMA CANAL RECORD of August 15, 1923. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of July, 1923, as compared with the same month in the years 1922 and 1921:

Route.	Atlantic to Pacific. Number of vessels.			Pacific to Atlantic. Number of vessels.		
	July, 1923.	July, 1922.	July, 1921.	July, 1923.	July, 1922.	July, 1921.
United States intercoastal trade	120	31	19	108	25	14
United States and South America	22	14	6	25	13	10
Europe and South America	16	10	7	21	13	3

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	July, 1923.	July, 1922.	July, 1921.	July, 1923.	July, 1922.	July, 1921.
United States and Far East	19	22	13	6	11	6
Europe and United States	18	11	9	6	19	17
Europe and Canada	5	3	4	9	7	3
Europe and Australasia	4	3	4	4	6	11
United States and Australasia	12	5	5	3	5	.....
Mexico and South America	1	3	2	2	.....	1
Cristobal and South America	7	8	12	11	9	14
United States and Canada	2	3	.....	5	4	.....
Miscellaneous	29	15	22	19	8	16
Totals	255	128	103	219	120	100
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal trade	634,141	155,758	101,924	610,826	126,894	70,477
United States and South America	88,564	43,594	18,539	116,085	52,672	32,992
Europe and South America	67,317	41,296	29,498	98,924	58,963	33,678
United States and Far East	97,839	113,464	63,969	36,430	62,230	30,048
Europe and United States	82,840	61,287	44,064	29,526	83,002	84,491
Europe and Canada	30,312	27,813	21,060	44,964	38,353	15,970
Europe and Australasia	30,942	20,122	29,486	27,552	36,851	70,124
United States and Australasia	55,873	32,317	23,280	16,046	22,791	.....
Mexico and South America	4,831	15,812	8,611	9,554	15,542	5,105
Cristobal and South America	12,886	15,831	17,619	19,702	17,191	23,607
United States and Canada	7,061	14,149	.....	26,995	16,418	.....
Miscellaneous	94,852	32,788	34,923	65,965	22,731	32,661
Totals	1,207,458	574,231	392,973	1,102,569	553,640	399,153
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal trade	277,428	150,379	60,997	997,468	153,052	91,991
United States and South America	28,836	19,774	9,222	205,808	86,771	33,125
Europe and South America	39,969	27,514	11,925	131,570	76,851	31,719
United States and Far East	110,665	163,433	70,684	41,130	57,846	29,829
Europe and United States	52,848	41,591	19,232	51,317	138,716	135,326
Europe and Canada	30,951	4,913	3,357	69,779	56,084	24,255
Europe and Australasia	28,206	15,741	10,846	15,443	36,769	63,747
United States and Australasia	64,908	30,525	24,068	10,121	14,362	.....
Mexico and South America	9,607	29,590	14,069	.....	.....	.....
Cristobal and South America	2,171	2,744	1,569	7,049	7,068	8,369
United States and Canada	11,863	20,291	.....	27,767	20,892	.....
Miscellaneous	32,580	35,917	24,471	90,300	20,277	32,181
Totals	690,032	542,412	250,440	1,647,752	668,688	450,542

LATIN-AMERICAN TRAFFIC.

Tonnage of vessels moving southbound through the Canal to Latin-American ports shows an increase over the same month for the two preceding years. The cargo tonnage, however, shows a slight decrease from the month of July, 1922, and a considerable increase over the month of July, 1921, the figures being 103,366 tons for the month of July, 1923; 109,628 tons for July, 1922, and 55,525 tons for July, 1921. Northbound Latin-American traffic during the month, however, shows a very decided increase over the same month for the two preceding years in point of tonnage, tolls and cargo; cargo tonnage carried for the month being 432,502, as compared with 189,467 for July, 1922, and 84,386 for July, 1921.

The principal commodities routed to Latin-American points were cement, coal, manufactured goods, crude oil and paper, while nitrates, ores, crude oil and metals made up the bulk of commodities routed from Latin-America.

Nitrate shipments showed a very decided increase during the month; 185,080 tons passed through the Canal, as compared with 40,416 tons in June and 66,618 tons in May, 1923.

In the tabulation below are shown the tonnage and cargo of all vessels routed to and from Latin-America, segregated by nationality of vessels:

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	21	69,018	81,993	110,338	68,993	$74,148.48	39,852
Chilean	3	7,087	10,922	14,901	8,446	8,858.75	2,246
Colombian	2	668	670	1,728	1,228	804.00	600
Danish	3	7,787	10,276	12,555	7,849	7,398.72	.....
Dutch	1	4,250	6,653	6,899	2,417	5,312.50	3,949
Ecuadorian	1	36	36	112	36	27.00	.....
French	2	7,166	8,227	11,446	7,281	8,957.50	7,297
German	4	12,753	18,304	21,003	12,672	15,941.25	14,230
Italian	2	5,311	6,103	8,343	4,916	6,636.75	1,434
Japanese	4	15,799	18,139	23,048	15,443	16,616.30	4,898
Norwegian	4	9,066	11,696	13,534	8,294	11,247.80	6,356
Peruvian	2	2,719	5,345	9,020	4,517	3,398.75	508
Spanish	2	4,193	6,154	9,016	6,010	5,434.45	134
United States	16	50,355	59,516	83,010	50,235	55,254.39	21,862
Totals, July, 1923	67	196,208	244,034	324,953	198,337	220,036.64	103,366
Totals, July, 1922	46	110,614	140,253	183,059	111,695	132,208.05	109,628
Totals, July, 1921	42	78,594	99,714	136,403	82,573	94,585.33	55,525
Pacific to Atlantic.							
British	28	95,578	115,273	153,372	97,082	115,047.38	164,716
Chilean	4	8,583	12,532	17,475	10,136	11,728.75	4,317
Colombian	1	334	335	864	614	411.60	615
Danish	2	4,636	5,807	6,545	4,133	5,626.80	11,001
Dutch	5	23,821	30,360	38,195	23,897	29,776.25	48,140
French	2	7,269	8,336	11,614	7,401	9,086.25	12,757
German	4	13,997	17,743	21,367	13,210	17,496.25	27,378
Italian	3	9,519	11,272	14,550	8,661	11,772.60	9,498
Japanese	5	20,824	24,541	11,510	20,872	26,030.00	43,776
Norwegian	1	5,207	5,219	7,041	5,234	6,262.80	8,901
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	494
Spanish	1	4,120	5,518	7,518	4,402	5,150.00	40
United States	16	50,416	56,289	80,437	49,325	60,781.57	96,602
Totals, July, 1923	75	248,012	300,975	382,813	250,998	303,805.25	432,502
Totals, July, 1922	45	127,374	161,605	216,995	131,922	153,036.64	189,467
Totals, July, 1921	44	99,862	129,887	166,419	102,303	112,330.18	84,368

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 60 per cent of the total transits of the Canal during the month, comprised approximately 62 per cent of the net tonnage, and carried 66 per cent of the total cargo in transit through the Canal.

The following statement shows the commercial traffic transiting the Canal in July, 1923, classified according to nationality of vessels, by directions, and then the combined traffic in both directions:

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	53	198,090	247,090	312,769	197,559	$229,269.66	193,034
Chilean	3	7,087	10,922	14,901	8,446	8,858.75	2,246
Colombian	2	668	670	1,728	1,228	804.00	600
Danish	7	19,923	25,655	30,740	20,169	22,489.27	25,087
Dutch	1	4,250	6,653	6,899	4,417	5,312.50	3,949
French	3	10,390	13,081	16,822	10,479	12,987.50	9,297
Ecuadorian	1	36	36	112	36	27.00	.....
German	5	17,662	25,036	29,112	17,555	22,077.50	17,317
Italian	2	5,311	6,103	8,343	4,916	6,636.75	1,434
Japanese	10	37,918	45,655	58,005	37,365	44,257.35	30,394
Mexican	1	163	192	.....	.....	138.24	.....
Norwegian	13	41,695	51,518	62,491	40,511	40,992.56	13,339
Peruvian	2	2,719	5,345	9,020	4,517	3,398.75	508
Spanish	2	4,913	6,154	9,016	6,010	5,434.45	144
Swedish	4	13,011	20,276	21,558	16,663	16,263.75	31,348
United States	146	603,879	743,072	953,573	604,174	606,562.85	361,335
Totals, July, 1923	255	967,715	1,207,458	1,535,089	974,045	1,025,510.88	690,032
Totals, July, 1922	128	454,736	574,231	722,758	453,528	549,218.11	542,412
Totals, July, 1921	105	324,330	403,051	508,670	321,763	405,220.18	258,440

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Pacific to Atlantic.							
British	38	140,692	171,057	226,339	142,831	$171,439.88	208,258
Chilean	4	8,583	13,532	17,475	10,136	10,728.75	4,217
Colombian	1	334	335	864	614	411.60	615
Danish	2	4,636	5,807	6,545	4,133	5,626.80	11,001
Dutch	6	29,584	37,979	47,533	29,706	36,980.00	58,066
French	5	17,156	20,408	26,622	16,404	21,445.00	33,198
German	4	13,997	17,743	21,367	13,210	17,496.25	27,378
Italian	3	9,519	11,272	14,550	8,661	11,772.60	9,498
Japanese	7	29,406	35,533	45,095	29,311	36,757.50	58,995
Norwegian	4	18,167	19,769	26,392	17,841	22,338.05	31,571
Panaman	1	26	26	26	26	19.50	.....
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	4,941
Spanish	1	4,120	5,518	7,518	4,402	5,150.00	40
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	5,617
United States	139	606,599	751,940	965,305	604,830	751,274.76	1,194,357
Totals, July, 1923	219	888,786	1,102,569	1,421,761	890,969	1,098,899.44	1,647,752
Totals, July, 1922	123	443,034	553,640	696,996	446,871	544,909.31	668,688
Totals, July, 1921	101	328,109	407,562	514,132	328,605	399,282.93	450,542
Combined traffic.							
British	91	338,782	418,147	539,108	340,390	400,709.54	401,292
Chilean	7	15,670	24,454	32,376	18,582	19,587.50	6,463
Colombian	3	1,002	1,005	2,592	1,842	1,215.60	1,215
Danish	9	24,559	31,462	37,285	24,302	28,116.07	36,088
Dutch	7	33,834	44,632	54,432	34,123	42,292.50	62,015
Ecuadorian	1	36	36	112	36	27.00	.....
French	8	27,546	33,489	43,444	26,883	34,432.50	42,495
German	9	31,659	42,779	50,479	30,765	39,573.75	44,695
Italian	5	14,830	17,375	22,893	13,577	18,409.35	10,932
Japanese	17	67,324	81,188	103,100	66,676	81,014.85	89,389
Mexican	1	163	192	.....	.....	138.24	.....
Norwegian	17	59,862	71,287	88,883	58,352	63,330.61	44,910
Panaman	1	26	26	26	26	19.50	.....
Peruvian	5	6,427	13,095	21,345	10,548	8,033.75	5,449
Spanish	3	9,033	11,672	16,534	10,412	10,584.45	184
Swedish	5	15,270	24,176	25,363	19,496	19,087.50	36,965
United States	285	1,210,478	1,495,012	1,918,878	1,209,004	1,357,837.61	1,555,692
Totals, July, 1923	474	1,856,501	2,310,027	2,956,850	1,865,014	2,124,410.32	2,337,784
Totals, July, 1922	251	897,770	1,127,871	1,419,754	900,399	1,094,127.42	1,211,100
Totals, July, 1921	206	652,439	810,613	1,022,802	650,368	804,503.11	708,982

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and Nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. Panama Canal net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. Panama Canal net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	7	35,173	$25,481.52	2	9,554	$6,878.88
Norwegian	1	4,916	3,539.52	.....	.....	.....
United States	74	435,003	314,229.96	1	6,946	5,001.12
General cargo ships:						
British	5	18,936	14,315.92	.....	.....	.....
Danish	3	10,276	7,398.72	.....	.....	.....
Japanese	1	4,700	3,384.00	.....	.....	.....
Norwegian	7	30,792	22,170.24	.....	.....	.....
Panaman	.....	.....	.....	1	26	19.50
Spanish	1	2,310	1,663.20	.....	.....	.....
United States	2	8,651	6,279.00	3	5,902	4,249.44
Totals	101	550,757	398,462.08	7	22,428	16,148.94

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of July, 1923, by kind of vessels, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	5	26,445	$31,689.25	81	482,230	$501,292.70
Ballast	82	475,092	343,251.00	3	16,500	11,880.00
General cargo and passenger ships:						
Laden	142	628,026	593,230.60	130	596,691	580,317.80
Ballast	19	75,665	55,211.08	4	5,928	4,268.94
Miscellaneous craft	7	2,230	2,128.95	1	950	1,140.00
Totals	255	1,207,458	1,025,510.88	219	1,102,569	1,098,899.44
Steamers	234	1,145,742	969,345.42	210	1,071,099	1,068,558.69
Motor vessels	12	56,125	50,010.96	6	30,422	29,102.50
Motor schooners	2	3,361	4,025.55	2	98	98.25
Yachts	3	932	675.96	.....	.....	.....
Dredge	1	192	138.24	.....	.....	.....
Cable ship	1	950	1,140.00	1	950	1,140.00
Tug	1	120	147.75	.....	.....	.....
Supply boat	1	36	27.00	.....	.....	.....
Totals	255	1,207,458	1,025,510.88	219	1,102,569	1,098,899.44

Of the 444 steam vessels, 316 were oil burners and 128 coal burners.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage of and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of July, 1923. If tolls had been assessed against these vessels at commercial rates, the amount of tolls would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	2	[1] 11,300	$5,675.00	.....	.....	.....
Submarines	2	1,760	880.00	1	520	$260.00
Supply ship	1	[1] 14,500	7,250.00	.....	.....	.....
Supply ship	1	[2] 9,050	3,089.25	.....	.....	.....
Transport	1	[1] 5,212	6,254.40	.....	.....	.....
Tugs	5	[1] 4 500	2,250.00	3	3,000	1,500.00
Repair ship	1	[1] 11,475	5,737.50	.....	.....	.....
U. S. Army vessels:						
Transport	.....	.....	.....	1	[1] 7,027	8,432.40
Totals	13	57,797	31,136.15	5	10,547	10,192.40

[1] Displacement tonnage. [2] Panama Canal net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	13,329
Pacific to Atlantic	597
Totals	13,926

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statement of commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	6	16	$14.75
Pacific to Atlantic	3	6	4.50
Totals	9	22	19.25

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of July, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons..	39,325	38,452	78,227
Local cargo shipped....tons..	3,352	460	3,812
Transit cargo arriving....tons..	2,332,764	2,336,011	4,668,775
Transit cargo clearing....tons..	2,343,418	2,333,206	4,676,624
Cargo received for transshipment....tons..	28,869	16,976	45,845
Cargo transshipped....tons..	23,922	145	24,067
Vessels supplied with bunker coal:			
Army vessels	1	.....	1
Commercial, other than Panama Railroad	58	4	62
Panama Railroad vessels	3	.....	3
Total vessels supplied with coal	62	4	66
Coal supplied to above vessels:			
Army vessels....tons..	65	.....	65
Commercial, other than Panama Railroad....tons..	19,395	52	19,447
Panama Railroad vessels....tons..	1,152	.....	1,152
Total coal supplied to vessels....tons..	20,612	52	20,664
Coal issues, miscellaneous:			
Panama Canal departments....tons..	144	949	1,093
Panama Railroad....tons..	17	.....	17
U. S. Army, excepting vessels....tons..	307	.....	307
Individuals and companies....tons..	217	.....	217
Total coal issued from Panama Canal deposits:			
July, 1923....tons..	21,297	1,001	22,298
July, 1922....tons..	16,267	8,176	24,443
July, 1921....tons..	25,465	2,145	27,610
Coal on hand, August 1, 1923....tons..	65,437	2,529	67,966
Coal on hand, July 1, 1923....tons..	69,594	2,223	71,817
Coal received during month....tons..	12,056	.....	12,056
Fuel oil issues from Panama Canal tanks:			
Panama Canal departments....bbls..	5,860.85	16,504.19	22,365.04
Panama Railroad Co....bbls..	140.73	.....	140.73
Army and Navy....bbls..	488.50	106.16	594.66
Total issues and sales....bbls..	6,490.08	16,610.35	23,100.43
Fuel oil on hand August 1, 1923....bbls..	70,619.71	62,141.81	132,761.52
Received during month....bbls..	.....	60,155.66	60,155.66
Fuel oil lost and surveyed....bbls..	.....	41.14	41.14
Diesel oil sold during July, 1923....bbls..	17.32	.....	17.32
Diesel oil on hand, August 1, 1923....bbls..	43,223.03	809.28	44,032.31
Oil pumped for individuals and companies....bbls..	518,201.19	534,368.71	1,052,569.90
Miscellaneous transfers....bbls..	4,005.40	497.87	4,503.27
Gasoline pumped for individuals and companies....bbls..	.....	9,259.57	9,259.57
Gasoline pumped for Panama Canal....bbls..	25,861.02	6,006.33	31,867.35
Total fuel oil and gasoline handled....bbls..	554,575.01	626,940.13	1,181,515.14
Admeasurement certificates of vessels:			
U. S. equivalent issued or made	36	7	43
Measured for Panama Canal net tonnage	5	1	6
Remeasured for Panama Canal net tonnage	38	5	43
Panama Canal net tonnage corrected	14	10	24
U. S. equivalent tonnage corrected	26	16	42
Services of harbor equipment:			
Tugs, total operating hours	393	431	824
Launches, total operating hours	1,523	2,015	3,738
Scows, total operating days	.....	11	11
Revenue from tug service, pilotage, etc.:			
Tug service	$14,199.05	$11,735.50	$25,934.55
Pilotage	14,744.00	9,520.00	24,264.00
Seamen	8,456.00	7,544.00	16,000.00
Launch service	2,225.50	3,694.00	5,919.50
Wharfage	.....	5,621.62	5,621.62
Ships measured	210.00	10.00	220.00
Miscellaneous cash collections	1,111.25	892.00	2,003.25
Vessels repaired at Panama Canal shops:			
Commercial	35	25	60
U. S. Army and Navy	3	8	11
Canal equipment	13	15	28
Vessels dry docked:			
Commercial	1	1	2
U. S. Army and Navy	3	2	5
Canal equipment	7	2	9
Clearances issued	262	264	526
Bills of health issued	261	269	530

ALL VESSELS ENTERING AND CLEARING PORTS.

The following statement shows the number and tonnage of all vessels entering and clearing the terminal ports of the Canal during the month of July, 1923:

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	522	3,259,019	2,046,730	486	3,062,304	1,932,853
Vessels entering port but not transiting the Canal	57	307,894	184,866	10	48,477	29,915
Vessels transiting Canal and handling passengers and cargo at terminals	72	385,679	238,699	43	224,350	139,661
Ships clearing.						
All vessels, including those transiting Canal	530	3,296,469	2,075,279	488	3,066,731	1,932,303
Vessels entering port but not transiting the Canal	55	297,026	179,066	11	48,515	29,933
Vessels transiting Canal and handling passengers and cargo at terminals	72	389,810	241,693	43	224,350	139,661

MOVEMENT OF PASSENGERS.

The following statement shows the number of passengers arriving and embarking at Canal ports during the month of July, 1923:

	At Cristobal.			At Balboa.		
	First class.	Others.	Total.	First class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,331	263	1,594	14	15	29
From Pacific ports	200	79	279	120	30	150
Total disembarking	1,531	342	1,873	134	45	179
Embarking:						
For Atlantic ports	882	217	1,099	69	93	162
For Pacific ports	219	64	283	64	22	86
Total embarking	1,101	381	1,382	133	115	248
Remaining on board vessels:						
From Atlantic to Pacific ports	307	742	1,049	824	1,780	2,604
From Pacific to Atlantic ports	657	667	1,324	629	722	1,351
From Atlantic to Atlantic ports	487	297	784	.....	.....	.....
Total remaining on board	1,451	1,706	3,157	1,453	2,502	3,955
Total passengers arriving	2,982	2,048	5,030	1,587	2,547	4,134
Total passengers departing	2,552	1,987	4,539	1,586	2,617	4,203

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of July, 1923:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$135.28	$286.14	$1,440.29	.....	$190.15	$2,051.90
Panama Railroad vessels	120.15	91.91	2,759.07	.....	778.52	3,749.65
Other commercial vessels	2,040.67	7,027.57	18,889.88	.....	1,457.73	29,415.85
Total sales, July, 1923	2,296.10	7,405.62	23,089.24	.....	2,426.40	35,217.40
Total sales, July, 1922	1,747.94	4,081.19	24,832.16	.....	1,978.20	32,639.49
Total sales, July, 1921	2,944.29	4,896.24	23,933.48	.....	1,788.23	38,494.65
Sales at Balboa to:						
U. S. Government vessels	306.30	921.04	7,457.79	.....	499.14	9,184.27
Other commercial vessels	1,246.91	2,604.60	10,849.31	.....	3,542.98	19,243.80
Total sales, July, 1923	1,553.21	3,525.64	18,307.10	.....	4,042.12	28,428.07
Total sales, July, 1922	466.51	6,697.40	13,527.72	629.99	1,535.72	22,857.34
Total sales, July, 1921	1,414.87	7,873.39	22,072.99	1,058.21	692.72	33,112.18

The aggregate sales to Government vessels during the month were $11,236.17; to Panama Railroad Company vessels, $3,749.65; to other commercial vessels, $48,659.65; making a grand total of $63,645.47.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages, during the month of July, 1923, as compared with the same month in the years 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	July, 1923.	July, 1922.	July, 1921.
Gatun	209	236	445	2	5	7	452	247	210
Pedro Miguel	217	251	468	8	19	27	498	274	246
Miraflores	216	249	465	7	17	24	489	269	237
Totals	642	736	1,378	17	41	58	1,439	790	687
	Number of vessels put through locks.								
Gatun	224	262	486	14	24	38	524	268	261
Pedro Miguel	219	258	477	32	41	73	550	297	291
Miraflores	219	258	477	32	40	72	549	294	290
Totals	662	778	1,440	78	105	183	1,623	859	842

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
U. S. Army and Navy vessels	27	23	26
Panama Canal equipment	11	50	46

The total consumption of water for lockages, loss in leakages, and maintenance was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,766,030,000	1,702,340,000	1,456,000,000
Leakage	30,000,000	6,100,000	20,000,000
Maintenance	.....	.....	3,800,000
Total consumption, July, 1923	1,796,030,000	1,708,440,000	1,479,800,000
Total consumption, July, 1922	1,016,116,000	911,800,000	813,870,000
Total consumption, July, 1921	805,760,000	804,450,000	799,030,000

METEOROLOGY AND HYDROGRAPHY.

The rainfall for the Pacific section of the Isthmus during the month of July was the lowest on record. Throughout the entire month only a total of 4.36 inches was recorded by the rain gauges. This is almost 3 inches less than July, 1922, but slightly over half of the mean rainfall of 8.21 inches for the month of July.

The rainfall in the Central section was also slightly below that of last year and more than 4 inches below the mean rainfall, but does not constitute a record.

The rainfall in the Atlantic section was in excess of that of July, 1922, although it was several inches below the mean precipitation.

The discharge of the Chagres River at Alhajuela was 1,745 cubic feet per second, as compared with a mean average of 2,749 cubic feet. The total Gatun Lake watershed yield was only 3,966 cubic feet, as compared with an average of 6,374 cubic feet, while the net yield was 3,452 cubic feet, as compared with a mean of 5,877 cubic feet.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of July, 1923, are shown in comparative form:

Rainfall.	July, 1923.	July, 1922.	July—Years of Record.		
			Maximum.	Minimum.	Mean
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Total rainfall for month:					
Pacific section	4.36	7.06	12.16	4.36	8.21
Central section	6.04	6.51	16.43	5.43	10.41
Atlantic section	10.78	6.66	20.40	6.66	14.60
Maximum recorded on any one day	4.00	3.14	[1] 10.86	.....	.....
Gatun Lake watershed	7.34	5.97	18.21	5.63	10.80
Chagres River above Alhajuela	9.05	7.98	20.10	7.92	14.24
Maximum recorded for month at any one point	12.66	11.53	34.96	.....	.....
Minimum recorded for month at any one point	3.15	1.72	.....	1.64	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharges of Chagres River at Alhajuela	1,745	1,933	4,420	1,248	2,749
Maximum momentary discharge for month	8,845	8,700	[2] 170,000	.....	.....
Gatun Lake watershed total yield	3,966	3,414	10,967	2,677	6,374
Gatun Lake watershed net yield	3,452	2,805	10,376	1,898	5,877
Draft on Gatun Lake for lockages and power	2,656	1,990	2,656	[3] 1,244	[3] 1,915

NOTE—This report does not include Bocas del Toro.

[1] This represents the maximum 24 hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Porto Bello on December 28–29, 1909. [2] This figure represents the maximum momentary discharge on record, December 26, 1909. [3] Not including July, 1914.

SEISMOLOGY.

Local shocks of sufficient intensity to be felt at Balboa Heights were recorded on the 13th and 14th, and a very slight tremor of probably similar origin occurred on the 30th. The indicated distance of the epicenter of the disturbances of the 13th and 14th was about 150 miles, and the direction was probably to the southwest. No damage occurred to Canal structures from any of the disturbances.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	July, 1923.	July, 1922.	July, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,573,200	4,234,700	5,541,100
Miraflores steam plant	80	5,050	500
Power distributed to consumers.....KWH..	3,977,322	3,577,845	4,601,656
Loss of power in plants, accessories, transmission and transformation.....KWH..	595,958	661,895	939,944
Per cent of loss of power to gross output	13.03	15.61	17.00
Water consumption.....cubic feet..	3,645,094,708	3,437,939,069	4,110,077,816
Oil consumption.....barrels..	827.05	1,829.99	2,006

Miscellaneous electrical repairs and installations of electrical equipment were made on 29 vessels during the month. There were 298 work orders issued for work to be performed by the Electrical Division during the month, as compared with 411 for the month of July, 1922.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 53 vessels at Cristobal and 48 at Balboa. Of these, 11 were placed in dry dock at Cristobal and 6 at Balboa. The more important repair work performed during the month included the following:

Tug *Cocoli* was dry docked, extensive repairs made on engine, pumps, steering gear, all steam and vacuum gauges calibrated, sea valves overhauled, new ice box with concrete floor beneath installed, new galley lockers built, and other extensive repairs made.

Steamship *Cristobal*, made two safety-valve stems; dressed faces of turning wheel, on main shaft of jacking engine; fitted new key and reassembled with fitted distance pieces; made and installed two new line bilge pumps; renewed exhaust suction on anchor windlass; repaired kitchen sanitary line, and made other necessary repairs.

The steamship *Colon* was dry docked on July 24th for rehabilitation of under-water portions of her structure. Nineteen shell plates were removed for renewal, and about 3,000 loose or wasted rivets backed out to be redriven. The propellers and outboard shafting were removed to the shop for repairs and the rudder overhauled. Her interior work was further advanced.

On the steamship *John D. Archbold*, brought in after going ashore on Bona Island, bulkheads and tank tops were shored to permit the vessel to go north for permanent repairs.

Shafts were replaced on submarine *O–7*, and submarine *O–9* was docked for general overhaul; and the engines were removed.

On the steamship *Betheridge* main turbines were opened, bearings renewed, rotor journals skimmed up, turbines reset, lubricating oil pumps and system overhauled, and repairs made to anchor windlass and refrigerating machinery. The broken steering gear of the *James McGee* was dismantled and spare gears were installed. New crank shaft was installed in Diesel-driven schooner *Laura C. Hall*, and extensive boiler welding was carried out on the steamship *Mina Brea*.

Eighty job orders for individuals and companies were issued during the month, including 11 for Navy vessels and 12 for vessels of the Panama Railroad Steamship Line. Of the remaining 57 jobs, 37 were for various steamers.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	July, 1923.			June, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	8	286	31,485	8	604	29,560
Steel	2	46	6,306	1	126	12,481
Nonferrous	1	1,001	11,362	7	282	7,577

A total of 571 job orders were completed during the month, leaving 596 unfinished at the close of the month. Four standing orders were authorized during the month and 4 were completed, leaving 347 standing orders for work on July 31, 1923.

MUNICIPAL ENGINEERING.

The total output of all pumping stations and of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels, are shown in comparative form:

	July, 1923.	July, 1922.	July, 1921.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	500,967,000	636,373,500	734,425,000
Filtration plants	379,720,000	367,976,000	449,527,000
Water consumed by Panama City	87,302,000	86,513,000	90,690,000
Water consumed by Colon	49,252,500	58,505,000	55,490,000
Sales of water to vessels	9,518,341	8,933,941	9,709,842

Work on the installation of two 80-foot radio masts at France Field was started, windlasses were installed and cable furnished for hoisting antennae; work 95 per cent completed. Construction of a water line from the Gamboa-Miraflores main to the Rio Grande reservoir was completed.

DREDGING.

The general movement in the West Culebra slide reported in May continued throughout the month of July. The maximum movement toward the water front on the bank was 8.5 feet, between stations 1774 and 1779, with an average of two feet between the limits above-mentioned for the month.

Only a slight movement along the water front was noted at the East Culebra slide.

At East Lirio Curve a movement occurred on the 13th, involving about 30,000 cubic yards, between stations 1722+75 and 1726+00 E. A dipper dredge was able to remove this material in 6 days.

All other slides have been quiescent during the month. There was no interference with Canal traffic.

The total excavation during July, 1923, was 590,700 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
31,250	7,250	24,000	Maintenance	Gaillard Cut, West Culebra slide	*Cascadas.*
48,650	11,700	36,950	Maintenance	Gaillard Cut, East Culebra slide	*Cascadas.*
24,250	5,550	18,700	Maintenance	Gaillard Cut, Empire, Lirio slide, East	*Cascadas.*
29,200	2,900	26,300	Maintenance	La Pita improvement project	*Paraiso.*
20,800	6,250	14,550	Maintenance	Gaillard Cut, Empire, Lirio slide, East	*Paraiso.*
1,650	1,000	650	Maintenance	Gaillard Cut, East Culebra slide	*Gamboa.*
5,350	.....	5,350	Maintenance	La Pita improvement project	*Gamboa.*

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
2,050	500	1,550	Maintenace	Gaillard Cut, Empire, Lirio slide, East	*Gamboa.*
119,300	119,300	.....	Maintenance	Gaillard Cut, East and West	*No. 86.*
127,050	127,050	.....	Maintenance	Pacific entrance, East and West	*Culebra.*
177,900	177,900	.....	Maintenance	Balboa inner harbor	*Culebra.*
3,250	3,250	.....	Auxiliary	Dredging sand at Chame	*La Valley.*
590,700	462,650	128,050			

VITAL STATISTICS.

A total of 122 deaths occurred during the month of July, 1923, among the population of the Canal Zone and the cities of Panama and Colon, which is equivalent to an annual death rate of 9.07 per thousand. The leading causes of death were: tuberculosis, 22; pneumonia, 12; organic diseases of the heart, 11; diarrhea and enteritis, 14; nephritis (acute and chronic), 3; accidental drowning, 6. Of the total deaths, 43, or 35.7 per cent, occurred among children under 5 years of age. Deaths among nonresidents of the Isthmus are not included in the above statistics.

There were 246 live births reported during the month and 11 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 20.8 per thousand. Deaths among children under one year of age numbered 31, giving and infant mortality rate of 125.61 per thousand live births.

The total number of malaria cases reported during the month was 245. Of these, 8 were reported from Panama City, 18 from Colon, 197 from the Canal Zone, and 22 originated from outside our sanitated area. Of the total, 26 were employees, 66 nonemployees, and 153 were from the Army and Navy personnel. There were no deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters, shown in comparative form, was as follows:

	As of June 31, 1923.			Comparative totals.		
	Men.	Women.	Children.	July, 1923.	July, 1922.	July, 1921.
Americans	2,322	1,890	2,077	6,289	5,835	7,280
Europeans	64	29	71	164	225	238
West Indians	3,963	2,688	6,068	12,719	12,336	12,969
Totals, July, 1923	6,349	4,607	8,216	19,172	.....	.....
Totals, July, 1922	6,380	4,398	7,618	.....	18,396	.....
Totals, July, 1921	8,103	4,668	7,716	.....	.....	20,487

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of July 18, 1923, by departments, together with a comparison of the working force for the preceding month and that of July, 1922:

	As of July 18, 1923.			Total employees.	
	Gold.	Silver.	Total.	June, 1923.	July, 1922.
Operation and Maintenance:					
Office	28	36	64	75	63
Electrical	153	162	315	296	277
Municipal Engineering	71	483	554	558	657
Lock Operation	178	568	746	749	717
Dredging	147	869	1,016	1,038	780
Mechanical	359	692	1,051	1,001	859
Marine	164	493	657	628	566
Fortifications	15	77	92	183	204
Totals	1,115	3,380	4,495	4,528	4,123
Supply Department:					
Transportation	36	153	189	193	180
Quartermaster	141	948	1,089	1,104	1,015
Subsistence	6	82	88	86	81
Commissary	166	764	930	930	927
Cattle Industry—Plantations	6	186	192	211	137
Hotel Washington	8	83	91	91	89
Totals	363	2,216	2,579	2,615	2,429

	As of June 20, 1923.			Total employees.	
	Gold.	Silver.	Total.	June, 1923.	July, 1922.
Accounting Department	185	8	193	190	195
Health Department	212	704	916	914	921
Executive Department	469	215	684	740	685
Totals	866	927	1,793	1,844	1,801
Panama Railroad:					
Superintendent	48	214	262	301	242
Transportation	64	106	170	172	167
Receiving and Forwarding Agency	78	770	848	1,002	610
Coaling stations	62	456	518	539	540
Totals	252	1,546	1,798	2,014	1,559
Grand totals, July, 1923	2,596	8,069	10,665	.....	.....
Grand totals, June, 1923	2,583	8,418	.....	11,001	.....
Grand totals, July, 1922	2,573	7,339	.....	.....	9,912

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month, as compared with the preceding month and the corresponding month a year ago, were as follows:

	July, 1923.	June, 1923.	July, 1922.
Material received on U. S. requisitions:			
For Department of Operation and Maintenance	$332,118.29	$268,011.65	$92,098.68
For other Canal departments	2,296.06	6,784.70	2,383.80
Totals	335,044.35	274,796.35	94,482.48
Cash sales on Isthmus:			
Stock	19,912.50	26,079.05	21,538.69
Fuel oil	40.70	71.40	520.52
Scrap	605.94	594.56	2,183.17
Obsolete and second-hand material	1,181.01	41,301.54	1,065.31
Totals	21,740.15	68,046.55	25,307.69

Respectfully,

M. L. WALKER,
Acting Governor.

Cable Rates.

The All-America Cables, Inc., advises that the rate from The Panama Canal to Iquitos, Peru, is now 35 cents; and the rate to Russia in Europe and Russia in Asia is 76 cents per word.

Nautical Almanacs for 1924.

Nautical Almanacs for 1924 may be obtained at the Hydrographic Office, Cristobal, and the Port Captain's Office, Balboa. They can also be ordered through the Hydrographic Office, Balboa Heights, C. Z. Price 20 cents.

"Jacob Luckenbach" to Carry Passengers.

Advice has been received from the Isthmian agency of the Luckenbach Line that, beginning with the sailing from New York on August 29, the steamer *Jacob Luckenbach* will carry passengers between New York and Los Angeles and San Francisco, and when accommodations are available passengers from the Canal ports may be booked.

The Luckenbach Line operates a large fleet through the Canal, primarily a cargo service, the *Jacob Luckenbach* being the only vessel in the service with extensive passenger accommodations at present.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, July, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Mexico.	West coast of Canada.	West coast of North America.	West coast of Central America.	Balboa, C. Z.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[2]	Total, Australasia.			
North America:																									
United States—																									
North Atlantic ports.	7,759	646	816	2,622	14,559	26,402	235,897	2,997	694	....	76	598	240,262	29,736	22,029	11,069	16,592	79,42[illegible]	4,458	10,788	33,431	48,677	4,240	399,007	57.8
South Atlantic ports.	.....	.....	.....	.....	.....	.....	3,126	.....	.....	.....	.....	.....	3,126	600	1,531	.....	659	2,79[illegible]	.....	.....	.....	.....	.....	5,916	0.9
Gulf ports.	909	245	218	569	263	2,204	44,185	.....	1,000	.....	.....	1,458	46,643	11,894	2,361	3,824	11,509	29,58[illegible]	.....	8,631	5,881	14,512	.....	92,947	13.5
Total, United States.	8,668	891	1,034	3,191	14,822	28,606	283,208	2,997	1,694	....	76	2,056	290,031	42,230	25,921	14,893	28,760	111,80[illegible]	4,458	19,419	39,312	63,189	4,240	497,870	72.2
East coast of Mexico.	9,607	.....	.....	.....	.....	9,607	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,795	1,795	.....	11,402	1.7
Cristobal, C. Z.[3]	1,265	153	199	212	357	2,186	1,242	3	.....	....	3,913	.....	5,158	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,344	1.1
West Indies.	315	.....	.....	.....	985	1,300	.....	.....	.....	....	88	.....	88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,388	0.1
East coast of Canada.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,322	522	5,003	9,847	.....	9,847	1.4
Total, North America	19,855	1,044	1,233	3,403	16,164	41,699	284,450	3,000	1,694	....	4,077	2,056	295,277	42,230	25,921	14,893	28,760	111,804	8,780	19,941	46,110	74,831	4,240	527,851	76.5
Europe:																									
Belgium.	772	.....	.....	1,758	1,000	3,530	24,672	.....	729	167	.....	.....	25,568	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,098	4.3
British Isles.	5,180	8	.....	3,750	5,402	14,340	10,230	.....	3,432	.....	.....	420	14,082	.....	.....	.....	.....	.....	11,150	.....	16,880	28,030	.....	56,452	8.1
Denmark.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,350	4,350	0.7
France.	773	.....	90	740	4,766	6,369	1,500	.....	500	.....	.....	.....	2,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,369	1.5
Germany.	606	.....	508	576	8,572	10,262	8,158	.....	241	....	702	.....	9,101	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19,363	2.7
Holland.	334	.....	.....	33	.....	367	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	367	.....
Italy.	112	.....	.....	19	1,303	1,434	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,434	0.1
Norway and Sweden.	.....	.....	.....	.....	.....	.....	26,255	.....	.....	.....	.....	.....	26,255	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26,255	3.8
Spain.	470	.....	.....	77	144	691	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	691	.....
Europe [illegible]	.....	.....	.....	.....	5,520	5,520	3,359	.....	7	....	.....	.....	3,366	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,886	1.3
Total, Europe.	8,247	8	598	6,953	26,707	42,513	74,174	.....	4,909	167	702	420	80,372	.....	.....	.....	.....	.....	11,150	.....	16,880	28,030	4,350	155,265	22.5
East coast, S. America.	.....	520	.....	.....	.....	520	4,896	.....	78	....	.....	.....	4,974	1,422	.....	.....	.....	1,422	.....	.....	.....	.....	.....	6,916	1.0
Grand totals.	28,102	1,572	1,831	10,356	42,871	84,732	363,520	3,000	6,681	167	4,779	2,476	380,623	43,652	25,921	14,893	28,760	113,226	19,930	19,941	62,990	102,861	8,590	690,032	100.0
Per cent of total cargo:																									
July, 1923.	5.2	0.2	0.3	0.6	6.0	12.3	52.8	0.4	0.9	....	0.7	0.4	55.2	6.3	3.7	2.2	4.2	16.4	2.9	2.9	9.1	14.9	1.2	.....	100.0
July, 1922.	9.1	.....	0.7	1.3	3.3	14.4	37.4	.....	2.3	1.5	0.7	1.1	43.0	14.0	8.5	0.9	9.0	32.4	1.6	5.7	2.3	9.6	0.6	.....	100.0
July, 1921.	7.2	0.3	0.1	1.7	5.3	14.6	35.6	0.3	1.0	....	3.2	0.4	40.5	11.3	3.3	.....	12.8	27.4	9.8	2.4	3.1	15.3	2.2	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, July, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.																							
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[3]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[2]	Total, Europe.				
South America:																								
Chile	135,127	4,634	20,035	159,796	....	6	.....	123	159,925	39,736	8,956	....	12,336	1,194	7,154	2,652	.....	.....	37,676	109,704	....	26,904	296,533	18.4
Colombia	2,014	.....	.....	2,014	....	.....	.....	2,626	4,640	.....	.....	....	60	.....	.....	.....	.....	.....	55	115	....	.....	4,755	0.3
Ecuador	280	.....	.....	280	....	.....	.....	768	1,048	.....	.....	....	146	520	.....	682	....	19	286	1,653	....	.....	2,701	0.1
Peru	36,559	.....	.....	36,559	....	6,000	.....	4,670	47,229	14,412	.....	....	.....	1,246	2,455	10	....	14	.....	18,137	....	.....	65,366	3.5
West coast, S. America [1]	6,903	.....	2	6,905	....	.....	.....	224	7,129	1,319	.....	....	.....	53	.....	23	....	....	62	1,457	....	.....	8,586	0.6
Total, South America	180,883	4,634	20,037	205,554	....	6,006	.....	8,411	219,971	55,467	8,956	....	12,542	3,013	9,609	3,367	....	33	38,079	131,066	....	26,904	377,941	22.9
North America:																								
West coast, U. S.	876,932	29,200	115,302	1,021,434	....	4,291	25,453	774	1,051,952	67,084	25	452	18,499	18	.....	.....	171	....	7,158	93,407	....	.....	1,145,359	69.7
West coast of Canada	3,298	.....	.....	3,298	....	.....	.....	8	3,306	17,356	500	....	300	.....	76	.....	88	....	8,487	26,807	....	.....	30,113	1.8
West coast, Central America	15	.....	.....	15	....	1,270	.....	1,913	3,198	.....	136	....	.....	.....	.....	.....	336	....	.....	472	....	.....	3,670	0.2
West coast, N. America [2]	6,262	.....	.....	6,262	....	.....	.....	568	6,830	200	200	....	.....	.....	.....	.....	.....	....	.....	400	....	.....	2,230	0.4
Balboa	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	....	.....	.....	....	.....	.....	.....
Total, North America	886,507	29,200	115,302	1,031,009	....	5,561	25,543	3,263	1,065,286	84,640	861	452	18,799	18	76	.....	595	....	15,645	121,086	....	.....	1,186,372	72.1
Asia:																								
China	3,432	.....	94	3,526	....	8,166	.....	.....	11,692	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	11,692	0.8
Japan	52	.....	.....	52	....	.....	.....	.....	52	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	52	.....
Philippines	22,761	.....	.....	22,761	....	.....	.....	.....	22,761	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	22,761	1.4
Far East [1]	12,925	.....	.....	12,925	....	8,300	.....	.....	21,225	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	21,225	1.3
Total, Asia	39,170	.....	94	39,264	....	16,466	.....	.....	55,730	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	55,730	3.5
Australasia:																								
Australia	1,102	.....	.....	1,102	45	.....	.....	.....	1,147	2,137	.....	....	.....	.....	.....	.....	.....	.....	.....	2,137	....	.....	3,284	0.2
New Zealand	4,243	.....	.....	4,243	....	.....	.....	.....	4,243	6,606	.....	....	.....	.....	.....	.....	.....	.....	.....	6,60(	....	.....	10,849	0.6
Australasia [1]	1,543	.....	5,300	6,843	33	.....	.....	.....	6,876	4,800	.....	....	.....	1,900	.....	.....	.....	.....	.....	6,70(	....	.....	13,576	0.7
Total, Australasia	6,888	.....	5,300	12,188	78	.....	.....	.....	12,266	13,543	.....	....	.....	1,900	.....	.....	.....	.....	.....	15,443	....	.....	27,709	1.5
Grand totals	1,113,448	33,834	140,733	1,283,015	78	28,033	25,453	11,674	1,353,253	153,650	9,817	452	31,341	4,931	9,685	3,367	595	33	53,724	267,595	....	26,904	1,647,752	100.0
Per cent of total cargo:																								
July, 1923	67.7	2.0	8.5	78.2	....	1.7	1.5	0.8	82.2	9.2	0.7	....	1.8	0.3	0.6	0.2	.....	.....	3.4	16.2	....	1.6	.....	
July, 1922	46.0	0.0	4.0	50.0	0.1	0.4	.....	1.4	51.9	22.3	2.2	0.9	0.3	1.4	4.4	1.0	0.2	1.6	12.5	46.8	0.3	1.0	.....	100.0
July, 1921	29.0	2.8	4.7	36.5	0.7	0.8	.....	2.5	40.5	36.7	.....	1.7	0.7	1.7	3.5	2.2	0.3	0.1	11.4	59.4	0.1	.....	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 25, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Quebec City	18	15.25	19	6.20	19	13.48	19	15.16	British	St. Just Steamship Co	403.0	54.0	25.2	Port Arthur	Australia	Oil, general	5,60	6,54	4,867
Sagadahoc	18	16.45	19	7.05	19	14.32	19	19.43	American	Argonaut Steamship Corp	420.5	54.2	27.0	New York	Seattle	General	9,10	7,34	5,342
Montpelier	19	6.2	19	8.00	19	15.30	19	22.10	American	Amer. Ship. & Com. Nav. Co	460.0	57.9	25.0	Baltimore	San Pedro	General	9,07	6,36	4,161
Trimountain [1]	19	5.35	19	8.40	19	17.12	19	18.37	American	General Petroleum Co	416.9	55.2	25.6	Mobile	Antofagasta	Crude oil	8,14	6,72	4,627
Foldenfjord [1]	19	6.35	19	9.00	19	16.22	19	20.42	Norwegian	Norwegian American Line	430.4	59.3	16.0	Tnamashaven	San Pedro	Ballast	....	7,78	5,520
Peacock [2]	19	6.35	19	9.25	19	16.28	20	14.50	American	Merritt, Chapman & Scott	180.0	35.4	14.0	New York	Los Angeles	Ballast	....	771	233
Bernice G. [3]	....	....	19	....	19	11.22	....	....	American	O. E. McCain	....	....	....	Cristobal	Gatun Lake	Ballast	....	2	2
Albertolite [1]	19	15.45	20	6.15	20	15.55	20	17.19	British	Imperial Oil Co	463.0	60.2	21.0	New York	Talara	Ballast	....	8,491	5,879
Antietam [1]	19	17.00	20	7.30	20	16.05	20	17.17	American	Antietam Steamship Corp	435.6	56.2	20.6	New York	Los Angeles	Ballast	....	7,42	5,094
Rubens	19	17.55	20	7.47	20	17.01	20	18.25	British	Bolton Steamship Co	360.0	52 0	22.4	Garngemouth	Malabrigo	Coal	5,00	4,467	3,273
Venezuela	19	6.25	20	10.30	20	17.47	20	18.50	Italian	Italian Line	420.0	51.6	21.1	Genoa	Valparaiso	General	870	7,622	5,051
Tuxpanoil [1]	20	10.52	20	11.00	20	18.32	20	23.15	American	McAllister Bros. (S. B.)	431.0	59.0	17.0	Baltimore	San Pedro	Ballast	....	7,862	5,049
Francis E. Powell [1]	20	5.30	20	12.45	20	20.20	20	21.54	American	Atlantic Refining Co	431.0	59.2	18.11	Rouen	San Pedro	Ballast	....	7,860	5,032
F. H. Hillman [1]	20	12.40	20	12.45	20	19.16	21	0.50	American	Standard Oil Co	500.0	67.3	21.0	London	Los Angeles	Ballast	....	11,225	7,913
Montana	20	8.55	20	13.30	20	20.58	20	22.12	French	French Line	410.8	59.9	23.0	Havre	Los Angeles	General	4,800	6,497	4,317
O-8 [4]	....	....	20	6.30	20	13.01	....	....	American	U. S. Navy	172.4	18.0	....	Cristobal	Balboa	Ballast	....	....	....
Helder	20	6.15	21	6.15	21	13.31	21	19.06	Dutch	Royal Netherlands W. I. Mail	372.0	50.0	23.6	Hamburg	Guayaquil	General	4,657	5,117	3,807
Swiftwind [1]	20	15.10	21	7.30	21	14.12	21	22.04	American	Swiftsure Oil Co	464.0	60.2	20.0	Fall River	San Pedro	Ballast	....	8,473	5,997
Atlantic Sun [1]	20	22.30	21	7.55	21	15.05	21	21.58	American	Sun Oil Co	429.3	59.2	16.0	New York	San Pedro	Ballast	....	7,568	5,283
Julia Luckenbach	21	1.45	21	8.30	21	15.59	21	20.00	American	Luckenbach Line	436.0	57.0	23.6	Philadelphia	Seattle	General	7,734	8,543	6,402
Tustem [1]	21	3.35	21	9.12	21	16.24	21	17.50	American	Atlantic Refining Co	425.0	57.2	21.0	Philadelphia	Los Angeles	Ballast	....	7,204	4,768
Toco [1]	21	6.30	21	9.30	21	17.08	21	18.45	British	Sheridan Steamship Co	440.0	53.0	28.0	Tampico	Tocopilla	Crude oil	9,792	7,693	4,831
H. H. Rogers [1]	20	21.18	21	12.35	21	19.48	21	20.59	American	Standard Oil Co	500.0	68.0	17.6	New York	San Pedro	Ballast	....	10,333	7,475
George G. Henry [1]	21	11.35	22	6.10	22	13.27	22	14.50	American	Pan-American Pet. & Trans. Co	435.0	56.0	21.4	Santos	San Pedro	Ballast	....	7,221	4,988
Laura C. Hall [5]	20	22.55	22	6.30	22	14.27	23	7.47	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	13	132	72
Hanna Nielsen	21	15.34	22	7.25	22	14.30	22	20.39	Norwegian	B. Stolt Nielsen & Co	400.6	51.0	11.0	Immingham	San Pedro	Ballast	....	6,600	5,049
Atreus	21	16.08	22	7.35	22	15.19	22	16.59	British	China Mutual Steam Nav. Co	413.5	52.8	23.6	New York	Shanghai	General	3,660	6,942	4,849
Kandahar	21	20.57	22	8.40	22	15.33	22	16.59	British	Bucknell Steamship Line	434.6	55.0	24.0	New York	Adelaide	General	6,050	7,677	5,912
Bolton Castle	21	21.38	22	9.28	22	17.03	22	21.55	British	James Chambers & Co	424.2	53.0	27.6	New York	Shanghai	General	6,950	6,489	4,869
Josiah Macy [1]	22	6.37	22	10.00	22	17.27	22	18.40	American	Standard Oil Co	419.0	57.0	16.0	New York	Los Angeles	Ballast	....	7,197	5,082
S. B. Hunt [1]	22	9.40	22	10.10	22	17.56	24	2.17	American	Standard Oil Co	420.0	59.0	18.0	New York	San Pedro	Ballast	....	7,652	5,522
Tulsagas [1]	22	11.40	22	11.50	22	18.53	24	0.48	American	McAllister Bros. (S. B.)	431.0	59.0	18.0	New York	Los Angeles	Ballast	....	7,817	5,049
Thorgerd	22	12.30	22	12.35	22	20.05	22	23.30	Norwegian	B. Bjornstad & Co	251.0	43.6	12.6	New Orleans	San Miguel	Ballast	....	2,706	1,762
Artigas	22	7.55	22	12.35	22	20.12	22	21.10	American	N. Atl. & Western S.S. Co. (S.B.)	390.0	54.2	19.2	Philadelphia	San Pedro	General	3,670	6,204	4,314
Steel Seafarer	22	13.30	22	13.35	22	20.58	23	1.16	American	U. S. Steel Products	424.2	56.2	25.11	Baltimore	Seattle	General, steel	8,710	7,611	5,454

[1] Tanker. [2] Shipping Board tug. [3] Launch. [4] Submarine. [5] Motor schooner.

J. R. Powell[6]			22	11.25	24	15.28	25		American	The Texas Co	110.1	23.3		Cristobal	Balboa	Unknown		191	175
No. 2136[7]	21		22		22	15.45			Panaman	A. Flores				Cristobal	Gatun	Unknown		2	2
Cape Henlopen[1]	22	18.35	23	6.22	23	14.20	23	19.36	American	Cape Steamship Co	434.8	56.2	19.0	New York	San Pedro	Ballast		7,425	5,202
E. L. Doheny III[1]	21	11.20	23	7.05	23	15.15	23	16.20	American	Pan-Amer. Pet. and Transp. Co.	467.6	62.7	16.6	New Orleans	San Pedro	Ballast		9,666	7,034
Agwismith[1]	22	20.50	23	7.45	23	16.04	23	17.24	American	Atl. Gulf & W. I. S. S. Co	499.9	68.1	29.3	New York	San Pedro	Ballast		10,600	7,447
K. R. Kingsbury[1]	23	0.33	23	8.40	23	15.41	23	17.24	American	Standard Oil Co	440.0	58.2	21.0	New York	Los Angeles	Ballast		9,033	5,938
Sucubaco	23	9.20	23	9.35	23	17.18	23	18.25	American	Submarine Boat Corporation	324.0	46.0	21.0	New York	Los Angeles	General	2,500	3,984	2,612
Chifuku Maru	23	9.43	23	10.05	23	16.53	23	18.05	Japanese	Kokusai Kisen Kaisha	385.0	51.0	20.0	Philadelphia	Yokohama	General	890	5,919	4,400
PresidentHayes	23	9.40	23	11.25	23	17.47	24	3.46	American	Pacific Argentine Brazil (S.B.)	502.0	62.0	25.0	Buenos Aires	San Francisco	General	5,474	12,023	8,443
E. T. Bedford[1]	23	13.40	23	13.45	23	20.24	23	9.26	American	Standard Oil Co	499.2	68.1	17.0	New York	San Pedro	Ballast		11,009	7,967
Pyro[8]	23	16.05	24	6.30	24	13.16			American	U. S. Navy	484.0	60.10	22.0	Hampton Rds.	San Diego	(10)	2,728		
Harry Luckenbach	23	20.50	24	7.17	24	15.28	24	19.28	American	Luckenbach Line	448.9	60.2	25.6	New York	Seattle	General	7,305	9,262	6,853
Kentuckian	24	4.35	24	8.05	24	16.15	24	17.25	American	American-Hawaiian Line	414.5	53.7	19.6	New York	Los Angeles	General	3,235	7,049	4,941
Port Bowen	24	7.07	24	9.05	24	16.31	24	17.39	British	Commonwealth & Dom. Line	480.0	62.0	23.0	New York	Auckland	General	2,012	10,745	7,849
Arabian Prince	24	7.20	24	9.15	24	17.02	25	0.56	British	Prince Line, Ltd	404.0	52.0	19.0	Antwerp	San Pedro	General	1,400	6,301	4,531
Belfast Maru	24	8.05	24	9.45	24	17.20	24	22.42	Japanese	Kokusai Kisen Kaisha	405.0	53.0	16.0	Philadelphia	San Pedro	Ballast		7,043	5,077
Santa Paula	24	6.25	24	11.55	24	18.24	25	0.24	American	Grace Line	404.0	53.9	21.0	Norfolk	San Pedro	General, steel	4,554	6,756	4,775
Steel Age	24	13.45	24	13.50	24	20.48	25	2.25	American	U. S. Steel Products Co	395.5	55.0	25.0	New York	San Pedro	General, steel	7,108	7,330	5,245
Quail[9]	17	17.05	24	7.55	24	16.15			American	U. S. Navy	180.0	35.6		Cristobal	Balboa	(11)			
Edgar F. Luckenbach	24	14.57	25	6.20	25	15.15	25	16.15	American	Luckenbach Line	425.0	57.3	31.0	New Orleans	San Pedro	General	9,967	8,568	6,565
Victolite[1]	25	1.45	25	7.15	25	16.02	25	17.20	British	Imperial Oil Co	500.0	68.0	25.0	New York	Talara	Ballast		11,049	7,732
Mobile City	25	2.25	25	7.59	25	16.54	25	17.43	American	U. S. Steel Products Co	395.6	55.0	22.0	Philadelphia	Talara	General, steel	4,412	7,330	5,241
Margaret Coughlan	25	6.45	25	8.50	25	17.21	25	21.36	British	Atlantic Steamship Co	411.0	54.0	21.0	Montreal	Victoria	General	4,350	6,624	4,999
Mantaro	24	16.38	25	10.30	25	17.49	25	19.00	Peruvian	Peruvian Line	367.0	46.0	18.5	Cartagena	Callao	Balata, cattle	406	4,838	2,959
Balboa	24	12.30	25	12.15	25	18.47	25	20.05	Colombian	Compania Costanera Colombiana	190.0	29.0	14.0	Cartagena	Buenaventura	General	514	737	335

[1] Tanker. [6] Barge. [7] Cayuca. [8] Supply ship. [9] Tug. [10] General and ammunition. [11] Towing 2 barges.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Vacuum[1]	18	16.30	19	7.14	19	14.30	19	14.30	American	Vacuum Oil Co	425.8	57.0	27.6	San Pedro	Philadelphia	Crude oil	19,000	7,473	5,034
Bochum	18	19.00	19	7.45	19	14.40	19	14.40	German	Kosmos Line	469.2	58.0	24.0	San Pedro	London	General	7,800	7,812	5,495
Feodosia	18	20.30	19	8.24	19	16.00	19	18.30	German	Hamburg-American Line	337.1	48.4	22.0	San Francisco	England	Barley	4,800	4,285	3,072
Wheaton	19	12.59	19	13.23	19	20.00	19	21.09	American	A. E. Mittnacht	415.0	53.7	24.0	Bellingham	Philadelphia	General	3,811	7,060	4,904
Valdura	19	13.30	19	14.20	19	21.40	20	0.10	British	Wessel Duval & Co	413.5	56.0	26.0	Iquique	Savannah	Nitrate of soda	8,666	6,101	4,358
Steelore	19	17.10	20	6.50	20	18.25	20	18.25	American	Ore Steamship Corporation	550.3	72.2	30.0	Curz Grande	Baltimore	Iron ore	20,000	15,551	5,297
San Fabian[1]	19	21.35	20	8.05	20	17.30	20	17.30	British	Anglo-Mexican Petroleum Co	530.5	69.4	31.0	San Pedro	Tampico	Crude oil	17,700	13,554	9,614
Santa Ana	20	8.00	20	8.58	20	16.55	20	21.00	American	Grace Line	360.2	51.6	22.0	Talcahuano	New York	(12)	3,442	5,770	4,081
Eastwind	18	22.00	20	13.04	20	20.20	20	20.20	American	U. S. A. Lines	384.3	51.2	15.6	Newcastle	New York	General	153	5,960	4,442
Laura C. Hall	19	13.50	20	13.16	20	22.55	22	6.30	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	Coffee, platinum	61	132	72
Joseph M. Cudahy[1]	20	13.45	20	14.47	20	22.35	20	22.35	American	Sinclair Navigation Co	430.2	59.2	27.0	San Pedro	New York	Crude oil	10,196	7,954	5,842
Wordsworth	20	24.00	21	7.30	21	14.45	21	15.25	British	Shakespeare Shipping Co, Ltd	354.0	48.0	24.0	Iquique	Bilboa, Spain	Nitrate of soda	5,700	4,188	3,012
Birkenhead[1]	21	3.40	21	10.50	21	18.20	21	18.20	American	Vacuum Oil Co	425.0	57.2	27.10	San Pedro	Philadelphia	Crude oil	10,400	7,502	4,982

[1] Tanker. [12] Nitrate, cotton, copper, borax.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Edgar Bowling	21	13.00	21	13.43	21	21.25	21	21.25	American	Garland Steamship Corporation	410.5	54.3	24.0	Everett	New York	Lumber, copper	[17]	6,567	4,909
Glenard [13]	19	20.30	22	6.53	22	18.50	25	8.25	Finland	Aktiebolaget Finiska Skolske	265.5	40.1	21.3	Guanape Is	Dublin	Guano	3,100	1,934	1,731
Texan	21	17.30	22	7.50	22	15.45	22	15.45	American	American-Hawaiian Line	471.0	57.2	17.6	Los Angeles	New York	General	2,500	9,154	6,903
Munindies	21	18.10	22	8.21	22	16.50	22	16.50	American	Munson-McCormick Co	370.0	53.1	23.0	Portland	New York	Lumber	4,675	5,525	4,097
Ansgir	22	3.30	22	8.53	22	17.30	22	17.45	German	Roland Line	408.4	54.0	23.6	Corral	English Chan	General, nitrates	6,845	6,542	4,532
Ceeil County [1]	22	1.00	22	11.24	22	19.42	22	20.45	American	Walker & Daly (S. B.)	431.0	59.2	25.0	San Pedro	Fall River	Crude oil	9,518	8,097	5,330
Robin Gray	22	1.00	22	14.15	22	21.32	22	21.32	American	Seas Shipping Co	424.8	55.2	23.0	San Diego	Philadelphia	[14]	5,779	7,472	5,542
Gen. O. H. Ernst	22	14.00	22	14.33	22	22.48	24	16.10	American	Panama Railroad Steamship Line	356.4	45.3	16.5	Guayaquil	New York	General	1,388	4,503	2,764
Eeuador	22	5.40	23	6.49	23	14.25	24	10.25	American	Pacific Mail Steamship Co	386.0	48.7	24.0	San Francisco	New York	[15]	3,394	5,926	4,178
Sabine Sun [1]	22	22.00	23	8.37	23	15.45	23	19.05	American	Sun Oil Co	429.3	59.2	27.6	Los Angeles	New York	Crude oil	10,500	7,621	5,277
Newport	22	14.30	23	8.50	23	17.20			American	Pacific Mail Steamship Co	326.0	38.0	16.2	San Francisco	Cristobal	General	435	3,173	2,163
Delft	23	0.40	23	8.53	23	17.35	24	13.27	Dutch	Royal Netherlands W. I. Mail	369.9	50.2	25.0	Talcahuano	Hamburg	Nitrate, general	6,224	5,862	4,393
Winnebago	23	7.00	23	9.26	23	18.20	23	20.10	American	Foreign Transport & Mer. Corp	360.7	48.2	22.0	Raysnord	New York	Lumber	4,200	4,762	3,373
K. I. Luckenbaeh	23	7.40	23	9.34	23	17.15	23	20.10	American	Luckenbaeh Line	446.0	56.1	21.1	Seattle	New Orleans	[16]	2,500	8,552	6,236
William Rockefeller [1]	23	9.50	23	11.27	23	19.45	23	19.45	American	Standard Oil Co. of N. J	554.9	75.3	31.0	San Pedro	New York	Crude oil	20,000	14,785	10,313
Canadian Ranger	23	10.30	23	11.35	23	22.05			British	Canadian Govt. Mer. Marine	399.8	52.3	17.0	Australia	Montreal	General	1,040	5,879	4,121
Hale [1]	23	9.30	23	13.04	23	20.40	23	20.40	American	Cities Serviee Co	435.0	56.0	27.0	San Pedro	Boston	Crude oil	10,000	7,642	5,274
Trontolite [1]	23	16.00	24	7.08	24	15.12	24	15.12	British	Imperial Oil Co., Ltd	420.0	57.0	28.5	Talara	Halifax	Crude oil	9,542	7,240	4,713
Sutransco	24	1.00	24	8.09	24	15.45	24	15.45	American	Transmarine Boat Corporation	324.0	46.0	24.6	Grays Harbor	Newark, N. J.	Lumber, copper	5,000	3,984	2,612
Bethore	23	17.40	24	13.26	25	13.00	25	14.00	American	Ore Steamship Corporation	550.3	72.2	32.8	Cruz Grande	New York	Iron ore	20,000	15,476	4,354
Pacifie	24	13.30	25	6.52	25	14.10	25	14.10	American	Isthmian Lines	399.7	56.4	23.0	Honolulu	New York	Pineapples, can	7,500	6,479	4,709
Durango [1]	24	18.30	25	7.42	25	15.55	25	15.55	American	C. E. Mallory & Co	435.0	56.0	27.0	San Pedro	Boyonne	Crude oil	11,000	7,642	5,275
Atlantie Maru	24	20.05	25	8.25	25	16.20	25	19.00	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	27.0	Taltal	Del. River	Nitrates	8,456	6,251	4,700
John D. Rockefeller [1]	24	14.00	25	8.45	25	17.15	25	17.15	American	Standard Oil Co. of N. J	458.3	60.0	26.8	San Pedro	New York	Crude oil	10,288	8,633	6,314
Tacoma [1]	25	0.50	25	9.54	25	18.20	26	4.15	British	Standard Transportation Co	440.5	58.7	26.2	Talara	Hamburg	Crude naphtha	8,500	8,338	5,147
Zenon	25	2.00	25	9.59	25	18.47	26	9.43	French	French Line	425.0	55.0	24.3	San Francisco	Havre	[18]	7,238	6,982	4,934
U. S. S. Quail			25	10.14	25	17.02	27	7.45	American	U. S. Navy	180.0	35.6		Balboa	Cristobal				
Indian	25	2.00	25	10.46	25	18.38	25	18.38	Danish	E. I. Dupont de Nemours	390.7	53.2	27.8	Iquique	New Orleans	Nitrates	8,400	6,173	4,418
Osiris	25	5.30	25	10.53	25	19.20	25	19.20	German	Kosmos Line	376.0	51.6	24.6	Valparaiso	Antwerp	General	6,402	5,788	4,028
D. G. Schofield [1]	25	6.12	25	11.38	25	20.35	25	20.35	American	Standard Oil Co. of California	439.5	58.0	30.0	San Pedro	New York	Crude oil	11,536	8,698	6,040
Lillian Luckenbaeh	25	7.45	25	11.49	25	21.49	25	21.40	American	Luckenbach Line	448.9	60.0	27.4	Portland	Philadelphia	Lumber, general	7,750	9,294	6,865
Dinteldyk	25	9.45	25	13.02	25	22.48	25	22.48	Dutch	Holland-American Line	485.0	62.0	28.6	San Francisco	Rotterdam	General, grain	9,733	10,786	7,551
Glyndon	24	20.30	25	13.20	25	23.45	25	23.45	American	Glyndon Steamship Corporation	289.0	44.1	19.2	Port Townsend	Antilla	Lumber	2,000	2,939	2,024
Steel Inventor	25	10.25	25	14.46	26	0.53	26	0.53	American	Isthmian Lines	424.2	56.2	16.8	San Diego	New York	Ballast		7,611	5,450

[1] Tanker. [13] Sailboat. [14] Lumber and canned goods. [15] General, copper, and coffee. [16] General and canned goods. [17] Lumber 4,675,000 feet; copper 570 tons. [18] Barley, wheat, general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 19...	El Norte [19]	Heurtada	Colon.	August 19..	Cristobal	Panama Railroad Steamship Line..	New York via Haiti.
August 19...	Vireo [20]	U. S. Navy	Norfolk.	August 19..	Toloa	United Fruit Co	New York via Habana.
August 19...	Robin [20]	U. S. Navy	Norfolk.	August 20..	Shenandoah	Texas Oil Co	Port Arthur.
August 19...	Zacapa	United Fruit Co	New Orleans via Habana.	August 20..	Zacapa	United Fruit Co	Bocas del Toro.
August 19...	Toloa	United Fruit Co	Port Limon.	August 21..	Robin [20]	U. S. Navy	Norfolk.
August 20...	Antiochia	Hamburg-American Line	Hamburg via wayports.	August 21..	Vireo [20]	U. S. Navy	Norfolk.
August 16...	Arabia [19]	San Blas Trading Co	Colon.	August 21..	El Norte [19]	Heurtada	Colon.
August 21...	Calamares	United Fruit Co	New York via Habana.	August 21..	Arabia [19]	San Blas Trading Co	Colon.
August 21...	San Blas	United Fruit Co	Boston via Habana.	August 21..	Antiochia	Hamburg-American Line	Port Limon.
August 21...	Parismina	United Fruit Co	New Orleans via Habana.	August 22..	San Blas	United Fruit Co	Boston via wayports.
August 22...	Metapan	United Fruit Co	New York via Kingston.	August 22..	Calamares	United Fruit Co	Port Limon.
August 23...	Tivives	United Fruit Co	Colombian ports.	August 23..	Metapan	United Fruit Co	Colombian ports.
August 23...	Zacapa	United Fruit Co	Bocas del Toro.	August 23..	Tivives	United Fruit Co	New York via Kingston.
August 24...	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.	August 23..	Parismina	United Fruit Co	New Orleans via wayports
.....	.....	.....	.....	August 23..	Zacapa	United Fruit Co	New Orleans.

[19] Motor schooner. [20] Mine sweeper.

PORT OF BALBOA.

August 19...	Limicana [1]	Anglo-Saxon Petroleum Co	San Pedro.	August 19..	Acasta [1]	Anglo-Saxon Petroleum Co	San Pedro for wireless.
August 19...	Guardian	All-America Cable Co	Puntarenas.	August 20..	Guardian	All-America Cable Co	High seas.
August 22...	Chuky	Chilean Steamship Co	Antofagasta.	August 21..	Limicana [1]	Anglo-Saxon Petroleum Co	San Pedro.
August 25...	Talamanca	United Fruit Co	Tarrasera River.	.....	.....	.....	.....

[1] Tanker.

*Other than ships passing through the Canal.

Statement Showing, by Nationality, the Number of Vessels, the Panama Canal Net Tonnage, Tolls Assessed, and Tons of Cargo Carried Through the Panama Canal During the First Nine Years of Operation.

Nationality.	Year.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
United States	1915	459	1,700,145	$2,002,845.77	2,187,904
	1916	213	652,989	724,219.01	848,857
	1917	404	1,239,492	1,238,322.63	1,475,725
	1918	567	1,704,040	1,713,827.23	2,098,277
	1919	784	2,257,342	2,327,261.48	2,758,886
	1920	1,129	3,791,088	3,805,924.77	4,547,140
	1921	1,210	4,861,761	4,784,577.35	5,163,025
	1922	1,095	4,971,509	4,867,495.81	4,950,519
	1923	1,994	10,208,536	9,473,819.65	11,055,156
Totals	.....	7,855	31,386,902	30,938,293.70	35,085,489
British	1915	465	1,630,833	1,847,341.10	2,200,514
	1916	358	1,161,097	1,140,395.07	1,570,660
	1917	780	2,663,250	2,595,158.60	3,393,750
	1918	702	2,529,203	2,498,596.49	2,615,675
	1919	607	1,915,744	1,954,715.87	1,876,939
	1920	753	2,760,188	2,805,018.50	2,830,268
	1921	972	3,978,329	3,989,281.58	3,738,257
	1922	935	3,795,526	3,728,007.80	3,329,861
	1923	1,065	4,892,338	4,736,221.04	4,929,317
Totals	.....	6,637	25,326,508	25,294,736.05	26,485,241
Norwegian	1915	42	130,776	141,066.91	166,522
	1916	44	172,459	149,357.56	229,368
	1917	145	490,534	448,948.53	597,581
	1918	296	876,024	823,748.57	1,090,823
	1919	128	497,555	460,057.68	577,679
	1920	106	397,632	371,408.79	404,323
	1921	140	548,227	523,311.94	637,887
	1922	113	385,007	374,870.62	408,268
	1923	147	597,359	558,839.74	704,292
Totals	.....	1,161	4,095,573	3,851,610.34	4,816,743
Japanese	1915	6	24,897	30,260.40	42,600
	1916	24	81,818	88,229.68	117,780
	1917	72	291,500	305,702.63	446,358
	1918	54	238,814	248,063.30	407,399
	1919	87	341,064	364,622.57	503,427
	1920	118	515,243	543,936.93	726,338
	1921	136	613,245	655,176.51	758,617
	1922	189	872,466	953,949.00	1,044,515
	1923	163	753,219	815,638.48	943,400
Totals	.....	849	3,732,266	4,005,579.50	4,990,434
Chilean	1915	35	94,638	101,275.95	50,879
	1916	33	91,243	80,192.25	53,573
	1917	99	265,210	236,588.20	184,446
	1918	96	254,841	223,146.30	153,259
	1919	93	253,561	212,511.90	161,340
	1920	79	212,000	169,472.55	104,738
	1921	63	159,727	147,023.75	61,737
	1922	53	150,398	115,757.90	46,182
	1923	62	201,411	158,182.50	76,670
Totals	.....	613	1,683,029	1,444,151.30	892,824
Danish	1915	24	92,537	110,680.30	116,603
	1916	18	68,011	66,938.80	94,950
	1917	43	163,882	141,461.44	242,567
	1918	100	272,946	249,761.14	420,063
	1919	79	213,534	207,404.47	325,277
	1920	9	32,221	43,528.35	42,533
	1921	60	236,512	241,411.86	322,059
	1922	53	227,473	222,146.65	272,779
	1923	65	240,053	221,569.36	307,876
Totals	.....	451	1,547,169	1,504,902.37	2,144,707
Dutch	1915	7	21,075	24,103.58	26,402
	1916	15	39,642	43,910.44	61,959
	1917	74	260,500	270,321.78	314,203
	1918	48	197,627	214,211.46	233,063
	1919	19	88,299	97,467.75	119,297
	1920	29	152,535	126,868.98	128,442
	1921	50	248,801	229,248.94	216,488
	1922	66	293,428	260,138.38	290,573
	1923	109	510,970	450,356.36	487,957
Totals	.....	417	1,812,877	1,716,627.67	1,878,384

Statement Showing, by Nationality, the Number of Vessels, the Panama Canal Net Tonnage, Tolls Assessed, and Tons of Cargo Carried Through the Panama Canal During the First Nine Years of Operation.—Continued.

Nationality.	Year.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Peruvian	1915	4	9,403	$10,034.30	8,202
	1916	30	74,429	67,691.30	62,210
	1917	86	218,593	199,860.25	159,609
	1918	83	208,958	177,732.30	143,344
	1919	64	166,956	133,243.12	121,524
	1920	75	191,689	161,964.75	119,418
	1921	60	157,495	107,160.64	105,322
	1922	60	161,930	103,035.30	64,370
	1923	80	216,829	152,620.10	111,519
Totals	.....	542	1,406,282	1,113,342.06	895,518
French	1915	3	10,703	12,843.60	13,600
	1916	1	4,343	4,782.50	7,176
	1917	9	38,889	39,446.42	36,680
	1918	52	147,805	152,028.03	159,859
	1919	104	253,774	283,971.06	286,812
	1920	60	114,664	127,818.17	125,249
	1921	44	155,889	164,575.94	132,836
	1922	51	190,171	216,475.40	139,463
	1923	56	252,333	258,360.69	230,175
Totals	.....	380	1,168,571	1,260,301.81	1,131,850
Swedish	1915	17	50,824	58,174.76	53,292
	1916	13	41,537	35,892.70	47,236
	1917	18	69,202	56,793.78	94,515
	1918	26	80,191	74,621.25	132,521
	1919	27	95,684	88,572.73	143,516
	1920	19	76,825	62,268.74	74,244
	1921	25	113,661	93,331.25	128,919
	1922	35	124,446	105,939.90	141,448
	1923	31	130,361	108,151.33	181,810
Totals	.....	211	782,731	683,746.44	997,501
Spanish	1915	.....	.....	.....	.....
	1916	.....	.....	.....	.....
	1917	20	49,124	47,731.15	71,080
	1918	11	24,469	24,032.78	35,394
	1919	5	11,066	11,092.29	10,047
	1920	41	106,056	98,228.02	101,563
	1921	44	117,400	118,548.41	143,076
	1922	9	27,264	32,712.88	23,701
	1923	14	41,201	38,102.75	32,178
Totals	.....	144	376,580	370,448.28	417,039
Italian	1915	2	4,158	3,992.40	900
	1916	1	3,861	2,779.92	.....
	1917	2	6,430	6,029.80	5,700
	1918	4	13,218	16,875.70	11,450
	1919	.....	.....	.....	.....
	1920	26	98,692	98,959.79	63,441
	1921	25	102,783	103,206.60	47,988
	1922	20	73,393	75,511.30	38,851
	1923	29	117,782	119,329.58	75,258
Totals	.....	109	420,317	426,685.09	243,588
German	1922	37	122,893	120,087.25	121,888
	1923	90	336,149	312,395.35	330,134
Totals	.....	127	459,042	432,482.60	452,022
Miscellaneous	1915	11	22,583	24,931.12	21,036
	1916	8	4,733	3,700.39	345
	1917	51	41,951	41,097.84	36,349
	1918	30	25,937	22,208.60	30,904
	1919	27	30,411	31,907.67	31,877
	1920	34	97,211	98,534.81	106,802
	1921	63	122,046	120,035.14	143,003
	1922	20	21,555	21,704.22	12,492
	1923	62	107,245	104,612.64	102,133
Totals	.....	306	473,672	468,732.43	484,941
Total traffic	1915	1,075	3,792,572	4,367,550.19	4,888,454
	1916	758	2,396,162	2,408,089.62	3,094,114
	1917	1,803	5,798,557	5,627,463.05	7,058,563

Statement Showing, by Nationality, the Number of Vessels, the Panama Canal Net Tonnage, Tolls Assessed, and Tons of Cargo Carried Through the Panama Canal During the First Nine Years of Operation.—Continued.

Nationality.	Year.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Total traffic, continued.....	1918	2,069	6,574,073	$6,438,853.15	7,532,031
	1919	2,024	6,124,990	6,172,828.59	6,916,621
	1920	2,478	8,546,044	8,513,933.15	9,374,499
	1921	2,892	11,415,876	11,276,889.91	11,599,214
	1922	2,736	11,417,459	11,197,832.41	10,884,910
	1923	3,967	18,605,786	17,508,199.57	19,567,875
Grand totals.....	.....	19,802	74,671,519	73,511,639.64	80,916,281

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs during the week ended August 11:

Steamship *Walter Jennings*, dismantle broken capstan gear and rig up hand-operating gear; cableship *Guardian*, renew main exhaust pipe in bunker space; steamships *East Wind*, repair main and auxiliary feed pipes and dynamo engine; *Tulsagas*, repair blower engine; *S. B. Hunt*, repair No. 3 winch, feed pump, and circulating engine; *Manitowac*, general overhauling of steering gear; repair feed pipes; *Manuel Calvo*, dock and undock; unship propeller; renew 2 sections of line shaft, repair broken end of intermediate shaft, fit couplings and manufacture and install new coupling bolts; install section of tail shaft furnished by ship; *Chuky*, dock and undock; stage and clean; paint underwater body and top sides with paint furnished by ship; repair steering gear, rudder, propeller, oil heaters, bilge pump, engine-room telegraph; caulk leaky rivets in ship's side and boiler seams; make repairs to main steam line, bilge pipes, feed pipes, sanitary pipe, boiler mountings, auxiliary steam and miscellaneous small repairs to engine and deck department; submarine *O–8*, dock and undock; paint and routine docking repairs.

PREVIOUSLY REPORTED.

U. S. submarines *O–7*, dock and undock; paint and routine docking repairs; *O–9*, dock and undock; paint and routine docking repairs; steamship *Colon*, reboilering and general overhauling.

The following vessels were at the Cristobal shops for repairs during the two weeks ended August 27:

Tug *Gorgona*, open up and examine main engine, steering engine, reversing engine, bilge pumps, air pump, circulating pump, capstan engine, and towing engine; refit all metallic packing; repair main steam stop-valve stem; overhaul main feed checks and stops; repair chafing rail; clean, chip, and scale bilges; furnish compressed air and electric lights; schooner *Arabia*, dock and undock; minor repairs to engine; calk garboard strake; clean and paint bottom; steamship *Cristobal*, repair scupper pipes, feed pumps, winch throttle valves, winch gears, wrenches, chisels, auxiliary steam line, galley steam table, sounding pipe guards; install guard plates over steam pipes; furnish 4 saloon-deck scupper covers; make 12 square washers and nuts; make main-stay clip; make two manhole plates; *Achilles*, 13 men to clean boiler and fire room (in Gatun Lake).

Minor repairs.—Launches *Rodman* and *Patrol*, steamships *Acajutla*, *Balboa*, *Venezuela* (Dutch), *Salvador*, *Santa Luisa*, *Mantaro*, *Bethelridge*, *District of Columbia*, *Almagro*, *Laurel Branch*, submarines *O–6 and O–9*.

Tug *Gorgona*, additional work; renew main engine drains and overhead ram and cylinder lubrication; adjust bearings and renew piston rings on steering engine; renew leaky tubes in main condenser; remove main feed-pump governor; overhaul fresh-water pumps; renew stuffing-box gland in main circulating pump; adjust bearings and renew piston rings in circulating engine; renew piston rings and rod; true up piston rod and reduce all brasses on capstan engines; adjust all bearings on towing engine; repair pipe work in fire room; renew leaky valves in sanitary system; burn holes in smokestack umbrella for fire buckets; overhaul feed-tank float valve; renew guard under towing chock; repair ice box and galley stove; barge *No. 108*, dock and undock; remove all dumping gear from deck and hoppers; clean all mud and rubbish from hoppers; remove sheathing; remove strongback and strongback braces; renew fenders where necessary; test all tanks and repair leaks; install

6 channels, 10″ x 25″, in hoppers and fasten hopper doors to channels; install 6 angles, 4″ x 6″ x ½″ on deck, fore and aft ends of barge; install 24 channels, 3″ x 10″ x 25″ in hoppers for wooden floor supports; install 20 angle stanchions, 4″ x 4″ x ⅜″, in line with trusses, similar to work done on barge *No. 106*; scale bottom with air hammers where necessary; stage, clean, and wire brush bottom; touch up bad spots with red lead; paint bottom with two coasts of red lead and zinc, and one coat of antifouling; scale and paint hoppers; temporary lights; barge *No. 117*, dock and undock; install U-bolts in middle doors; repair end fenders where necessary (about 30 linear feet); renew two corner fenders; test all tanks and repair all leaks; repair ladders in tanks where necessary; repair guard irons over hopper sheathing where necessary; repair deck plates where necessary; repair bitts and install doubling plates under bitts where necessary; repair cleats on loading side, amidships; repair bad chocks on both ends of barge; repair hatch coaming where necessary; stage, clean, and wire brush bottom; scale bottom with air hammers where necessary; touch up bad spots with red lead; paint bottom with two coats of red lead and zinc; and one coat of antifouling; repair winding gear; temporary lights; steamships *Los Alamos*, remove two engine pistons; fit crosshead pins and bushings and replace pistons; grind true crosshead pins; rebabbit and bore out bushings; weld loose rivets in hull; *General W. C. Gorgas*, make two rings for H. P. piston; install No. 2 winch; renew boiler-guard plate; repair fire tools and chisels; repair toilet; renew glycerine tank in steering engine room; make one ventilator cowl; renew ladder rings in hatches 1, 2, 3 and 4; furnish 12 men to calk decks; repair railings and stanchions at No. 5 hatch.

Minor repairs—Launch *Rodman* and *A. R. C., 1904*; steamships *Achilles*, *Canadian Ranger*, *Balboa*, *General O. E. Ernst*, and *Newport*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending August 25, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Zacapa	United Fruit Co	August 19	August 20	300	233
Toloa	United Fruit Co	August 19	August 19	15	81
Venezuela	Italian Line	August 19	August 20	142	.....
Laura C. Hall	Pacific Mail Steamship Co	August 19	.....	61	.....
Montana	French Line	August 20	August 20	21	84
Helder	Royal Netherlands W. I. Mail	August 20	August 21	169	10
E. L. Doheny III	Pan American Petroleum Co	August 20	August 22	10,720	.....
Parismina	United Fruit Co	August 21	August 23	503	34
Calamares	United Fruit Co	August 21	August 22	104	240
San Blas	United Fruit Co	August 21	August 21	10	6
Antiochia	Hamburg-American Line	August 21	August 21	273	3
Ecuador	Pacific Mail Steamship Co	August 22	August 24	194	248
Gen. O. H. Ernst	Panama Railroad Steamship Line	August 22	August 24	405	.....
Metapan	United Fruit Co	August 22	August 22	120	.....
Zacapa	United Fruit Co	August 22	August 23	10	47
Tivives	United Fruit Co	August 23	August 23	6	54
Pyro	U. S. Navy	August 23	August 24	45	.....
Newport	Pacific Mail Steamship Co	August 23	.....	415	.....
President Hayes	United States Shipping Board	August 23	August 24	2	.....
Delft	Royal Netherlands W. I. Mail	August 23	August 24	34	66
Gen. W. C. Gorgas	Panama Railroad Steamship Line	August 24	.....	1,340	.....
Kentuckian	American-Hawaiian Line	August 24	August 24	177	.....
Santa Paula	Grace Line	August 24	August 24	176	.....
Balboa	Compania Costanera Colombiana	August 24	August 24	26	.....
Mantaro	Peruvian Line	August 24	August 25	2	.....
Venezuela	Pacific Mail Steamship Co	August 25	August 25	138	.....
Essequibo	Pacific Steam Navigation Co	August 25	August 26	119	.....
Zenon	French Line	August 25	August 25	260	.....

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending August 25, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Limicana	Anglo-Saxon Petroleum Co	August 19	August 21	7,924	.....
Laura C. Hall	Pacific Metals Corp	August 19	August 19	7	.....
Laura C. Hall	Pacific Metals Corp	August 22	August 22	.....	67
Ecuador	Pacific Mail Steamship Co	August 22	August 23	291	.....
Newport	Pacific Mail Steamship Co	August 22	August 23	501	.....
Arabian Prince	Prince Line	August 24	August 24	.....	1
Pyro	U. S. Navy	August 24	August 25	35	.....

Executive Order.

Amending the Executive Order Adopted April 14, 1921, Entitled "Relating to the Licensing of Vehicles, Road Rules, Use of Lights, Tags, and Signals, and Speed Regulations in the Canal Zone."

By virtue of the Act of Congress entitled "An Act Extending Certain Privileges of Canal Employees to other Officials on the Canal Zone and Authorizing the President to Make Rules and Regulations Affecting Health, Sanitation, Quarantine, Taxation, Public Roads, Self-Propelled Vehicles, and Police Powers on the Canal Zone, and for Other Purposes, Including Provision as to Certain Fees, Money Orders, and Interest Deposits," approved August 21, 1916, I hereby establish the following Executive Order for the Canal Zone amending the Executive Order established April 14, 1921, entitled "Relating to the Licensing of Vehicles, Road Rules, Use of Lights, Tags, and Signals, and Speed Regulations in the Canal Zone," by adding thereto three additional sections, Nos. 30, 31, and 32, as follows:

Section 30. The responsibility of owners and operators of motor vehicles over the public roads and highways of the Canal Zone specified in Sections 13 and 18 of the Executive Order of April 14, 1921, "Relating to the Licensing of Vehicles, Road Rules, Use of Lights, Tags, and Signals, and Speed Regulations in the Canal Zone," shall be limited to criminal responsibility fixed by Section 5 of the Act of Congress approved August 21, 1916, entitled "An Act Extending Certain Privileges of Canal Employees to Other Officials on the Canal Zone and Authorizing the President to Make Rules and Regulations Affecting Health, Sanitation, Quarantine, Taxation, Public Roads, Self-Propelled Vehicles, and Police Powers on the Canal Zone, and for Other Purposes, Including Provisions as to Certain Fees, Money Orders, and Interest Deposits," and also embodied in Section 28 of the Executive Order above referred to and shall not be construed as establishing a rule for the fixing of civil liability.

Section 31. The Executive Secretary may revoke the license or licenses issued to the owner of any motor vehicle or vehicles used upon the public roads or highways of the Canal Zone, if any vehicle so owned shall be negligently or carelessly driven thereon or thereover, or in violation of any rule of the road which has been or may hereafter be adopted relating to the use of such roads or highways, by the owner or any other person with the express or implied consent or knowledge of such owner. The Executive Secretary may revoke the license of the motor vehicle so driven negligently, carelessly or in violation of such rule of the road, or all licenses issued to such owner for all motor vehicles covered thereby.

Section 32. This Order shall take effect thirty days from and after its date.

JOHN W. WEEKS,
Secretary of War.

August 15, 1923,
By the President.

Notaries Public.

In the list of the notaries public in the Canal Zone published in the issue of August 15, 1923, the date of expiration of commission of Oscar S. Boyd was given as July 30, 1923. The date should have been July 30, 1925.

Reduced Rates for Subscription to "The Panama Canal Record."

Beginning with the current volume, XVII, the subscription price of THE PANAMA CANAL RECORD has been reduced from $2 foreign and $1.50 domestic, to $1 for delivery to foreign countries and 50 cents for delivery in the United States and countries reached under the United States domestic postal rates.

Several thousand copies of the paper are necessary for official use, including the supply to steamship lines and affiliated marine interests, to which the paper is sent without charge. The new subscription prices represent approximately the cost, plus 10 per cent, of printing and delivering additional copies to individuals and firms who may have an interest in receiving the paper but are not entitled to receive it without charge.

Museum Collection.

The steamship *Easterner*, which transited the Canal on August 15, had as a part of her cargo a consignment of live animals, consisting of camels, kangaroos, opossums, wombats, 3 lions, emus, cockatoos, parrots, geese, and also a number of reptiles, snakes, lizards, turtles, etc., in transit from Sydney, Australia, to New York. The *Easterner* also had about 12 tons of dried ferns aboard, same origination and destination.

Failures of Steering Gear.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., August 11, 1923.

MEMORANDUM FOR STEAMSHIP AGENTS:

Many of the accidents to steamers in narrow waters or congested areas are due to failure of steering gear. On ships fitted with the telemotor, it is particularly important that, prior to a Canal transit, the rudder be tried hard over each way to be sure there are no air pockets in the lines and the lines pumped up with rudder amidship when necessary. This operation only takes about 10 minutes. Whatever the type of steering gear, it should be tested prior to Canal transit.

In two recent accidents in the Canal it was found that chief engineers were not at their stations, as required by paragraph 27, page 12, of the Rules and Regulations for the Operation and Navigation of The Panama Canal, and footnote 10 on page 12.

In several cases engine rooms have disobeyed bridge signals. By proper planning and attention to engine telegraphs, masters can be reasonably sure that bridge orders will be transmitted correctly and obeyed promptly.

It is requested that your principals be advised of the contents of this memorandum.

A. W. HINDS,
Marine Superintendent.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective August 23, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Official Circulars.

Permits for Gardens.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 16, 1923.

To all concerned: The following rules and regulations shall govern the issuance of permits for gardens in the vicinity of Canal quarters and other places within one mile of the Canal towns and also the manner in which such gardens are to be maintained:

(1) On October 1, 1923, all existing permits covering garden plots in the Canal Zone will be cancelled.

(2) The Land Agent will designate certain areas of land adjacent to settlements in the Canal Zone, within which areas, upon application, plots of land 100 feet square will be assigned by District Quartermasters only to employees of The Panama Canal for the cultivation of garden truck for their own use. Employees who now have cultivations within the area so set aside will be given preference in the assignment of land which they have under cultivation. The District Quartermasters and Land Agent may grant reasonable extensions of time for harvesting of crops already planted, but no additional plantings or cultivation will be permitted on plots for which permits are being cancelled.

(3) The representative of the Land Office will confer with District Quartermasters and station commanders of the Zone police in each district in setting aside certain areas of land near Canal settlements for assignment as garden plots.

(4) District Quartermasters may issue permits as heretofore, but in the manner prescribed herein, to occupants of gold quarters for operating small vegetable or flower gardens in the vicinity of their quarters.

(5) Areas of land assigned to departments or divisions of The Panama Canal for their exclusive use, such as the Corozal Hospital reservation, will be governed in the issuance of garden permits to employees of The Panama Canal within such areas as herein provided, except that the authority to issue such permits will be vested in the responsible employee of the department or division occupying that particular area.

(6) Any garden plot assignment will be made with the definite understanding that the rights of The Panama Canal are in no way limited thereby, and it is free to use the tract assigned at any time and for any purpose, with no obligation to compensate the employee for the value of any crop or structure which may be on the land at the time.

(7) An assignment to a garden plot will terminate upon the employee's separation from the service, except that, with the approval of the District Quartermaster, the assignment may be extended. No transfers of garden plots will be permitted except upon the approval of the District Quartermaster.

(8) It will be understood further that such assignment is revocable if the area is not maintained in a satisfactory condition, the crops being planted in such a manner as to leave the ground open to inspection at all times, and that weeds and grass be kept down on the plot, and that no old cans or receptacles for water be permitted to accumulate thereon, and that drainage ditches on or adjacent to the plot be not interfered with, nor will cultivation be permitted within 10 feet of drainage ditches, roads, streets, sidewalks, and main water and sewer lines.

(9) Lands within one mile of and outside the limits of the Canal Zone towns designated in paragraph 2 of Circular 713-1, and Army posts, not included in the areas set aside for truck gardening, may be cultivated under agricultural license, which will be issued by the Land Agent upon application through the District Sanitary Inspector, under the provisions of Circular 713-1 with the exception that no houses for residential purposes will be allowed within one mile of such settlements. Copies of such licenses, when issued, will be furnished by the Land Agent to the Police and Fire Division and the Municipal Engineer, who also will be notified upon termination of such licenses.

(10) The assignment of land for agriculture to nonemployees shall be exclusively under the jurisdiction of the Land Agent, and when such areas are located within the limits of Canal Zone towns, assignments should be made only with the consent of the District Quartermaster.

(11-*a*) District Quartermasters, on making assignments of gardens to employees in the areas to be set aside for that purpose, and (*b*) the responsible employees of various departments or divisions in charge of the special areas referred to in paragraph 5, shall keep a record of such permits, giving each assignment a serial number, at the same time furnishing the Land Office, the Police and Fire Division, and the Municipal Engineer with a copy of all permits issued. These offices shall also be notified when such permits are cancelled on account of an employee's termination of service, or for any other reason.

(12) No part of this circular shall be construed as intending to prohibit or discourage employees from selling such products as they may produce beyond their own requirements.

JAY J. MORROW,
Governor.

Unsafe Bridge.

THE PANAMA CANAL,
OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., August 23, 1923.

All concerned—The second bridge on the old Corozal road, about one mile from the bull ring, is not safe for vehicular traffic.

All concerned are warned that they use this bridge at their own risk.

GEO. W. GREEN,
Municipal Engineer.

Examinations for Junior Engineer, Surveyor, and Recorder.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 24, 1923.

HEADS OF DEPARTMENTS AND DIVISIONS:

Examinations for junior engineer, surveyor, and recorder in the Panama Canal service are hereby announced to be given at Balboa Heights, C. Z., in room 314, Administration Building, on Wednesday, September 5, 1923, beginning at 8 a. m. Five hours will be allowed for completing these examinations.

According to Circular 603-13, all promotions to the grade of junior engineer shall be made by selection from an eligible list established by means of an examination held by the Local Board of Examiners for the promotion of recorders and surveyors. This examination will include the following subjects:

1. Mathematics.
2. Surveying.
3. Design and construction.

The weights to be given these subjects will be decided at a later date, but the applicant will be given this information before beginning the examination. Applicants should file with their examination papers a statement as to their education and experience.

This examination is open to all recorders, surveyors, and draftsmen now in the service of The Panama Canal.

The examination for surveyor is open to all recorders and draftsmen employed by The Panama Canal.

The Board will endeavor to make these examinations as practical as possible to the work of The Panama Canal by incorporating in the examination test questions made up from sug-

gestions by the heads of the various departments and divisions who employ engineers.

Application to take these examinations should be made to the Secretary of the Local Board at Balboa Heights (telephone, Balboa 286) from whom further detailed information may be obtained relative to these examinations.

O. E. MALSBURY,
Chairman, Local Board of Inspectors.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Sale of Oil Drums.

The Panama Canal offers for sale 300 drums which have been used for handling crude oil, larvacide, etc., at a price of $1 each, without surcharge, f. o. b. Cristobal Storehouse, where these drums are located. Arrangements for purchase may be made with the Storekeeper, Supply Department, Cristobal, or the General Storekeeper, Balboa.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20

   Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Company (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners, forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

End Lock Binders.

A supply of 100 "Miller End Lock Binders," with key, size 5 inches by 8 inches, is available for official issue, free of charge.

Any division interested can secure same from Storekeeper, Supply Department, Administration Building, Balboa Heights.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to.The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

Schedule of Official Jitney Service.

Following is the schedule of the official jitney plying between Balboa shops and the Ancon police station, carrying employees in the conduct of official business, upon presentation of passes issued by the Chief Quartermaster or of the "special pass" issued by the Governor:

FROM ANCON POLICE STATION TO BALBOA SHOPS.

Police Station	Leave on the hour and half hour.
Administration Building	Leave 7 minutes and 37 minutes after the hour.
Balboa Commissary	Leave 10 minutes and 40 minutes after the hour.
Balboa shops	Arrive 15 minutes and 45 minutes after the hour.

FROM BALBOA SHOPS TO ANCON POLICE STATION.

Balboa shops	Leave 15 minutes and 45 minutes after the hour.
Port Captain's Office	Leave 18 minutes and 45 minutes after the hour.
Balboa Commissary	Leave 20 minutes and 50 minutes after the hour.
Administration Building	Leave 25 minutes and 55 minutes after the hour.
Ancon Police Station	Arrive on the hour and half hour.

Postal Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balbor Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., September 5, 1923. No. 4.

Traffic in August.

The number of commercial transits through the Panama Canal during the month of August was 454. This is 20 less than those in July but exceeds any month prior to July, 1923. In addition to commercial transits, there were 7 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 22 transits of Government vessels on which no tolls were paid, making the total transits for the month 483, or an average of 14.65 per day.

Tolls for the month aggregated $2,050,656.97 on the 454 commercial vessels and $25.15 on the 7 launches, making a total of $2,050,682.12 or an average of $66,151.03 per day.

The detail of the months' traffic, segregated by directions, was as follows:

	Transits.				Tolls.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches.	Total.
Atlantic to Pacific	261	7	11	279	$1,083,892.40	$25.15	$1,083,917.55
Pacific to Atlantic	193	.....	11	204	966,764.57	.....	966,764.57
Totals.....	454	7	22	483	2,050,656.97	25.15	2,050,682.12

The following tabulation shows the monthly totals, and the daily averages of transits and tolls during the current calendar year, for commercial vessels only:

	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
January.....	352	$1,505,285.55	11.35	$48,557.60
February.....	326	1,423,954.21	11.64	50,855.51
March.....	409	1,827,718.44	13.20	58,958.66
April.....	404	1,878,938.15	13.47	62,631.27
May.....	419	1,972,216.04	13.52	63,619.87
June.....	417	1,898,043.80	13.90	63,268.13
July.....	474	2,124,410.32	15.29	68,529.36
August.....	454	2,050,656.97	14.65	66,150.22

The average amount of tolls paid by each commercial vessel transiting the Canal during the month of August, 1923, was $4,516.87.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 1, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Venezuela	25	13.30	26	6.23	26	13.47	27	1.57	American	Pacific Mail Steamship Co	380.0	48.7	21.9	New York	San Francisco	General	1,455	6,033	4,353
Beaconlight [1]	25	23.55	26	7.35	26	14.45	26	16.00	American	Beacon Oil Co	435.0	56.0	18.0	Boston	San Pedro	Ballast		7,481	5,119
Eastern Planet	26	7.30	26	7.40	26	15.48	27	11.51	American	U. S. & A. Line (S. B.)	385.0	51.0	24.0	New York	Adelaide	General, case oil	4,390	6,235	4,480
Essequibo	25	21.25	26	10.28	26	17.29	26	18.43	British	Pacific Steam Navigation Co	450.0	57.0	23.7	New York	Valparaiso	([8])	2,711	9,099	6,117
Cape Ann [1]	26	11.30	26	11.40	26	18.54	27	0.33	American	Cape Steamship Co	425.0	57.0	17.0	New York	San Pedro	Ballast		7,484	5,216
Acajutla	13	16.52	26	12.20	26	19.33	26	22.41	British	Pacific Steam Navigation Co	215.7	33.5	15.6	Cristobal	Champerico	General	766	1,273	706
Lio [1]	26	12.00	26	12.40	26	20.29	28	20.11	American	McAllister Brothers (S. B.)	413.0	59.2	20.0	Philadelphia	San Pedro	Ballast		7,862	5,177
Rotorua	27	1.57	27	6.40	27	13.14	28	1.30	British	New Zealand Shipping Co	526.0	61.4	22.0	London	Wellington	General	4,190	12,846	9,439
Stiklestad	27	5.40	27	9.25	27	17.07	27	18.20	Norwegian	A. F. Klaveness & Co	439.0	57.8	17.0	Norfolk	Vancouver	Ballast		7,447	5,112
Hazel Branch	27	10.15	27	10.35	27	17.47	27	20.47	British	F. & W. Ritson	400.4	51.2	20.6	Swansea	Talcahuano	General	2,200	5,208	3,578
San Francisco [2]	27	2.25	27	11.00	27	18.34	28	18.05	Swedish	Johnson Line	362.0	51.0	24.8	Stockholm	Seattle	General	6,230	5,298	4,019
Alda	27	11.30	27	11.45	27	19.17	27	20.47	German	Roland Line	360.0	51.1	19.9	Hamburg	Corral	General	2,850	4,791	3,392
Agwimex [1]	27	11.40	27	12.10	27	20.15	29	3.00	American	Atl. Gulf & W. I. S. S. Co	480.5	66.9	18.0	Baltimore	San Pedro	Ballast		9,394	6,306
Widgeon [3]	25	7.10	27	9.45	27	17.50			American	U. S. Navy	180.0	35.0	14.0	Charleston	San Diego	Towing barge			
Irene S. Wilkinson [4]	24	21.00	27	7.20					American	Howard Lumber Co	187.3	38.0	11 6	Guantanamo	San Miguel	Supplies	17	866	730
Quail [5]	25	17.02	27	7.45	27	15.39			American	U. S. Navy	180.0	35.6		Cristobal	Balboa	Towing barge			
Ruby [6]	25		27		27	14.24			American	E. J. Hooper				Cristobal	Gatun Lake	Ballast		1	1
Lochkatrine [2]	27	10.23	28	6.10	28	13.06	28	21.22	British	Royal Mail Steam Packet Co	485.4	62.3	19.8	Rotterdam	Vancouver	General	2,122	10,802	7,595
Steel Mariner	27	20.50	28	7.05	28	14.19	28	15.30	American	U. S. Steel Products Co	424.2	56.0	27.0	Mobile	Kobe	([9])	8,192	7,611	5,450
Slavie Prince	28	6.15	28	8.28	28	14.56	29	7.58	British	Prince Line, Ltd	448.5	57.2	24.0	Philadelphia	Shanghai	General	8,400	9,139	6,759
American	28	6.30	28	8.35	28	15.44	28	17.26	American	American Hawaiian Line	406.8	51.1	26.3	Baltimore	San Pedro	General	7,302	5,918	4,113
Fred W. Weller [1]	28	7.25	28	9.18	28	15.54	28	17.28	American	Standard Oil Co	500.0	68.0	18.0	New York	San Pedro	Ballast		10,928	7,710
Western Scout [7]	28	3.00	28	10.05	28	17.03	29	20.40	American	U. S. Army (S. B.)	409.0	54.0	19.2	New York	Honolulu	Military supplies	2,417	6,255	4,502
Standard Arrow [1]	28	9.25	28	10.25	28	18.30	28	20.03	American	Standard Transportation Co	475.0	63.0	28.0	Sabine	Taku Bar	Oil in bulk	11,566	9,698	6,783
Ormidale [2]	28	11.25	28	11.30	28	19.15	28	20.12	American	Ormidale Steamship Co	250.5	43.5	20.0	New Orleans	Los Angeles	General	2,734	2,373	1,612
Ceres	28	12.15	29	6.07	29	13.47	29	18.10	Dutch	Royal Netherlands W. I. Mail	348.0	48.2	19.6	Hamburg	Corral	General	3,545	4,243	3,123
Orestes	28	15.45	29	7.05	29	15.04	29	16.10	British	Alfred Holt & Co	392.0	47.0	20.0	Liverpool	Vancouver	General	3,051	4,840	3,373
Fukuyo Maru	28	16.00	29	7.20	29	15.42	29	18.10	Japanese	Toyo Kisen Kaisha	400.0	53.0	27.0	New York	Kobe	General	5,392	5,911	4,349
Pennsylvania Sun [1]	29	0.30	29	7.55	29	16.31	29	21.20	American	Sun Oil Co	480 5	66.0	21.0	New York	Los Angeles	Ballast		9,325	6,383
Sunoil [1]	29	2.40	29	8.20	29	17.01	30	0.01	American	Sun Oil Co	430.0	58.2	17.0	Chester	San Pedro	Ballast		7,439	5,209
Haimon	29	5.10	29	9.30	29	17.13	30	0.20	German	Roland Line	361.0	44.0	19.0	Bremen	Mazatlan	General	1,434	4,350	3,117
Norway Maru	29	6.45	29	10.00	29	17.56	29	22.48	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	27.0	Antwerp	San Pedro	Cement	8,239	5,926	4,397
J. L. Luckenbach	29	4.45	29	10.30	29	18.06	29	19.00	American	Luckenbach Line	448.9	60.0	23.0	New York	Los Angeles	General	5,000	9,294	6,861
Dillwyn [1]	29	12.40	29	12.50	29	18.50	30	1.24	American	Malston & Co	435.0	56.0	20.0	New York	San Pedro	Ballast		7,441	5,180

[1] Tanker. [2] Motor ship. [3] Mine sweeper. [4] Schooner. [5] Tug. [6] Launch. [7] Transport. [8] General, cotton, and oil. [9] Steel rails, pipe, and sulphate.

Alameda [1]	29	5.25	29	13.30	29	20.24	31	4.33	American	H. L. Arnold & G. L. Craig	430.0	58.2	19.0	New York	San Pedro	Ballast		7,425	5,356
Aysen	27	15.20	30	6.17	30	13.09	30	15.10	Chilean	Chilean Line	379.6	44.3	21.6	Cristobal	Valparaiso	General	564	4,535	3,068
Santa Teresa	29	13.53	30	6.18	30	12.55	30	15.00	American	Grace Line	360.2	51.6	22.10	New York	Talcahuano	General	2,429	5,726	4,086
Antinous	29	7.15	30	6.30	30	13.46	30	15.00	French	Messageries Maritimes	419.0	56.0	24.8	Dunkirk	Noumea	General	2,487	7,643	5,364
Siam [10]	29	13.27	30	7.10	30	15.18	30	16.45	Danish	East Asiatic Steamship Co	410.0	55.0	27.7	Copenhagen	Vancouver	General	8,546	7,068	5,303
Wm. Boyce Thompson [1]	29	20.10	30	7.25	30	15.06	30	16.08	American	Sinclair Navigation Co	430.0	59.0	22.0	Providence	San Pedro	Ballast		7,780	5,562
Bessemer City	29	20.15	30	7.52	30	15.53	30	17.05	American	U. S. Steel Products Co	441.0	56.0	26.5	Baltimore	San Pedro	General	8,280	7,611	5,450
Ingram	29	21.55	30	8.50	30	16.09	30	17.05	German	Roland Line	370.0	51.0	19.0	Hamburg	Portland	General	2,490	4,899	3,704
Commercial Trader	29	22.38	30	9.15	30	17.06	30	18.35	American	Moore & McCormack	399.0	51.0	26.8	New York	San Pedro	General	7,400	6,190	4,455
Elisha Walker [1]	30	0.55	30	9.20	30	17.39	30	18.55	American	Pan-American Petroleum Co	429.3	59.2	21.0	Portland, Me.	San Pedro	Ballast		7,978	5,971
Halsey [1]	30	1.00	30	10.05	30	17.44	30	22.28	American	Malston & Co	435.0	56.0	17.10	Baltimore	San Pedro	Ballast		7,642	5,324
Floridian	30	7.22	30	10.13	30	18.30	30	22.55	American	American Hawaiian Line	415.0	53.7	18.0	Boston	San Pedro	General	3,135	7,273	5,105
David McKelvy [1]	30	8.55	30	11.10	30	18.22	30	23.05	American	Tidewater Oil Co	430.0	59.2	19.0	New York	Los Angeles	Ballast		7,629	5,393
Ensley City	30	9.05	30	11.15	30	19.26	31	0.33	American	U. S. Steel Products Co	395.5	55.0	26.9	Philadelphia	Far East	Steel, sulphate	8,461	7,330	5,239
Rotarian	30	10.55	30	12.00	30	20.06	31	5.41	American	Wessel Duval & Co. (S. B.)	380.0	53.1	15.0	New York	Talcahuano	General	721	5,660	4,059
Margaret Dollar	30	8.40	30	13.00	30	21.00	30	22.09	American	Robert Dollar Line	429.0	55.2	26.6	Baltimore	San Pedro	General	4,747	7,579	5,527
Ilford	29	21.47	30	13.10	30	21.56	30	23.14	British	Watts, Watts Co	360.0	48.0	23.0	Baltimore	San Antonio	Coke	4,004	4,636	3,262
Yankee Arrow [1]	30	12.25	30	13.27	30	22.34	30	23.40	American	Standard Transportation Co	468.3	62.6	27.9	Beaumont	Woosung	Standard white	11,025	9,841	6,946
Trecarrell	30	13.05	31	6.06	31	14.07	31	15.27	British	Hain Steamship Co	400.1	52.3	24.11	Avonmouth	Auckland	General	8,800	5,790	4,067
Solana [1]	30	18.25	31	7.10	31	14.28	31	21.00	American	Pacific Mail Steamship Co	435.0	56.6	20.0	Fall River	San Pedro	Ballast		7,060	5,025
Corvus	30	20.40	31	8.25	31	15.40	31	20.20	American	Planet Steamship Corp	410.5	54.0	24.0	Baltimore	Seattle	General, steel	7,448	6,604	4,655
Sunugentco	30	21.00	31	8.40	31	16.34	31	17.35	American	Transmarine Corporation	324.0	46.0	20.0	New York	San Pedro	General	3,000	3,984	2,612
Newport	23	17.20	31	8.55	31	15.47	31	21.20	American	Pacific Mail Steamship Co	326.0	38.0	18.2	Cristobal	San Francisco	General	1,744	3,173	2,163
Livingstone Roe [1]	31	3.50	31	9.10	31	17.18	31	18.20	American	Standard Oil Co	462.0	60.2	17.0	New York	San Pedro	Ballast		8,491	6,065
A. C. Bedford [1]	31	11.57	31	11.50	31	19.53	31	21.00	American	Standard Oil Co	500.0	68.0	16.0	New York	San Pedro	Ballast		10,896	7,688
J. C. Donnell [1]	31	11.47	31	12.00	31	19.00	31	23.10	American	Atlantic Refining Co	500.0	68.2	20.0	Philadelphia	Los Angeles	Ballast		10,435	7,900
Huguenot [1]	31	8.25	31	12.10	31	20.39	31	21.45	American	McAllister Brothers (S. B.)	434.8	56.2	21.6	New York	San Pedro	Ballast		7,394	5,099
Willsolo	1	2.15	1	6.45	1	13.58	1	18.35	American	Williams Steamship Co	434.3	57.7	20.2	New York	Seattle	General	4,429	7,983	5,882
Los Alamos [1]	27	4.35	1	7.12	1	16.16	1	17.20	American	General Petroleum Co	292.3	47.2	17.0	Chester	Los Angeles	Ballast		3,424	2,100
Rigi	1	6.36	1	7.20	1	14.42	1	16.00	Norwegian	C. Eitzen & Co	400.2	53.0	14.0	Liverpool	San Francisco	Ballast		6,392	4,606
J. W. Van Dyke [1]	31	14.25	1	8.30	1	15.18	1	16.28	American	Atlantic Refining Co	435.0	56.0	30.0	Philadelphia	San Pedro	Ballast		7,460	5,215
Heathfield	1	3.25	1	8.42	1	17.04	1	18.25	British	Woodfield Steamship Co	400.3	52.0	17.6	Baltimore	Vancouver	Ballast		5,804	4,045
James McGee [1]	1	13.44	1	13.58	1	21.11	2	1.32	American	Standard Oil Co	499.1	68.3	20.0	New York	San Pedro	Ballast		10,964	7,909

[1] Tanker. [10] Motor ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Arawa	25	20.50	26	7.04	26	14.45	27	0.20	British	Shaw, Savill & Albion Co	459.5	60.5	23.10	Wellington	London	Frozen, general	6,000	10,035	7,504
Japan Arrow [1]	26	1.00	26	8.01	26	16.30	26	16.30	American	Standard Transportation Co	468.3	62.7	27.6	San Pedro	New York	Crude oil	12,340	10,084	7,426
T. J. Williams [1]	26	7.00	26	8.58	26	17.12	26	17.12	American	Standard Oil Co. of N. J.	465.4	60.2	26.9	San Pedro	New York	Crude oil	11,800	8,585	6,087
Duendes	26	10.00	26	11.19	26	18.50	27	9.30	British	Pacific Steam Navigation Co	390.0	50.0	24.0	Punta Arenas	Glasgow	General	5,778	6,006	4,287
Shunko Maru	25	21.30	26	11.34	26	19.35	26	20.10	Japanese	Osaka Shosen Kaisha	425.0	53.6	17.0	San Francisco	New York	General	1,403	6,923	5,296
Losada	25	19.00	26	12.52	26	21.45	26	22.20	British	Pacific Steam Navigation Co	404.6	54.2	26.8	Valparaiso	Havre	([12])	5,274	7,221	4,844
Buenos Aires	26	11.15	26	12.01	26	20.45	28	4.17	Spanish	French Line	410.6	48.2	24.0	Valparaiso	Barcelona	General	6	5,624	3,844

[1] Tanker. [12] Nitrate and copper bars.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
W. W. Mills [1]	26	10.10	26	14.40	26	22.50	26	22.50	American	Pure Oil Co	424.4	58.2	28.4	San Pedro	Chester, Pa	Crude oil	10,307	7,333	5,119
Aysen	26	23.00	27	8.03	27	15.20	30	6.17	Chilean	South American Line	373.6	43.3	19.6	Talcahuano	Cristobal	General	25	4,535	3,068
Maine	27	2.57	27	9.05	27	16.00	27	21.05	American	Seas Shipping Co	402.0	54.2	22.0	Seattle	Baltimore	Lumber, general	4,456	6,936	4,998
Montana	27	22.30	28	7.00	28	14.25	28	14.25	American	Atlantic Transport Co	419.5	56.5	25.0	Portland	Baltimore	Copper, general	6,500	8,696	6,315
Talamanca	25	5.00	28	7.04	28	16.52	28	16.52	Panaman	United Fruit Co	58.3	16.6	7.3	Tavesera River	Cristobal	Ballast		40	27
U. S. S. Sirius	28	0.15	28	8.03	28	14.50	30	14.00	American	U. S. Navy	401.0	54.0	26.6	Bremerton	Norfolk	Naval stores	326		
Nordlys	28	1.30	28	8.55	28	16.45	28	16.45	Danish	Wessel, Duval & Co	362.0	51.3	25.0	Antofagasta	Jacksonville	Nitrate of soda	6,344	4,932	3,468
U. S. S. Quail			28	9.14	28	16.30	4	8.35	American	U. S. Navy	180.0	35.0		Balboa	Cristobal	Ballast			
Manitowoc	22	12.35	29	7.09	29	15.25	29	15.25	American	Foreign Transport & Mer. Corp.	390.1	52.1	23.0	Portland	New York	Lumber, general	3,405	4,991	3,543
Cerro Ebano [1]	29	2.42	29	7.53	29	16.35	29	16.35	American	Huasteca Petroleum Co	480.5	66.0	27.6	Los Angeles	New Orleans	Crude oil	13,000	9,389	6,453
U. S. S. Ramapo	29	4.00	29	8.44	29	17.15	2	6.10	American	U. S. Navy	461.6	60.0	27.9	Los Angeles	Coco Solo	Diesel oil	10,429		
Hoxbar [1]	29	8.20	29	9.50	29	19.20	30	20.05	American	McAllister Brothers (S. B.)	434.8	56.2	26.6	Los Angeles	New York	Crude oil	10,000	7,421	5,174
Bantu	29	9.00	29	9.59	29	17.35	29	17.35	American	Isthmian Line	376.0	47.0	17.0	San Francisco	New York	General	1,191	4,607	3,032
Chuky [1]	22	13.00	29	10.30	29	19.50	29	19.50	British	Chilean Steamship Co	449.0	56.0	14.0	Antofagasta	Tampico	Ballast		7,691	4,723
Oak Branch	29	9.30	29	14.39	29	21.42	29	21.42	British	F. & W. Ritson	385.0	49.8	23.5	Valparaiso	Liverpool	General	6,202	5,209	4,035
Port Hunter	29	16.50	30	7.02	30	17.10	30	20.05	British	Commonwealth & Dom. Line	497.0	62.0	23.0	Sydney	London	Frozen, general	5,760	10,825	7,968
Salvador	29	17.00	30	8.06	30	17.35			British	Pacific Steam Navigation Co	225.0	35.4	12.8	Champerico	Cristobal	General	265	1,270	735
Manavi	29	23.30	30	9.13	30	17.40			British	Pacific Steam Navigation Co	216.0	35.1	11.9	Guayaquil	Cristobal	General	415	1,357	884
Ebro	30	3.45	30	10.10	30	18.00	31	2.25	British	Pacific Steam Navigation Co	459.3	57.8	23.0	Valparaiso	New York	([14])	2,378	9,151	6,227
Huallaga	30	13.15	30	14.47	30	22.23	2	8.25	Peruvian	Peruvian Line	360.0	44.5	21.1	Ilo	Cristobal	General	2,516	4,514	2,386
Charles Pratt [1]	31	3.40	31	7.55	31	16.25	31	17.00	American	Standard Oil Co. of N. J.	500.0	68.0	28.1	San Pedro	New York	Crude oil	15,200	10,313	7,492
Hamburg Maru	31	6.30	31	8.47	31	16.35	31	17.55	Japanese	Osaka Shosen Kaisha	400.0	54.5	16.1	Singapore	New York	([15])	2,527	6,094	4,301
Henderson [13]	28	1.00	31	9.55	31	17.15	1	0.30	American	U. S. Navy	483.0	63.0	22.0	Cordova	Hampton Rds.	General	17½		
Steel Ranger	31	7.30	31	9.56	31	18.28	31	18.28	American	Isthmian Line	424.2	56.2	21.6	Vancouver	Boston	Lumber, general	6,500	7,611	5,450
Agwihavre [1]	31	9.20	31	11.11	31	19.43	31	19.45	American	Ward Line	480.5	66.0	28.0	San Pedro	New York	Crude oil	12,489	9,394	6,305
Robert Luckenbach	31	14.15	31	14.52	31	21.30	31	21.30	American	Luckenbach Line	445.0	58.0	23.6	Los Angeles	Boston	General, lumber	6,500	8,695	6,370
Standard [1]	31	15.15	1	7.18	1	15.05	1	15.05	American	Standard Oil Co. of N. Y.	523.8	68.6	30.6	San Pedro	New York	Crude oil	17,000	12,171	8,673
Emidio [1]	31	19.15	1	7.35	1	15.27	1	15.27	American	General Petroleum Co	435.0	56.2	27.0	San Pedro	Philadelphia	Gasoline	8,000	7,433	5,058
Bogota	31	23.45	1	8.42	1	16.45	2	1.27	British	Pacific Steam Navigation Co	400.0	52.4	24.6	Valparaiso	Havre, Lond'n	([16])	6,340	5,733	4,015
Sucdco	31	0.20	1	9.46	1	17.38	1	17.38	American	Transmarine Corporation	324.0	46.2	21.0	Bellingham	Newark	Lumber, salmon	2,560	3,984	2,612
Wm. G. Warden [1]	1	3.40	1	10.15	1	18.48	1	18.48	American	Standard Oil Co. of N. J.	500 0	68.2	29.0	Los Angeles	New York	Crude oil	15,427	10,524	7,600
Robert E. Hopkins [1]	31	23.30	1	10.42	1	20.05	1	20.05	American	Tidewater Oil Co	424.4	58.2	25.0	Los Angeles	New York	Crude oil	9,877	7,333	5,244
Agwibay [1]	1	11.20	1	12.24	1	21.05	1	21.05	American	New York & Cuban Mail S. S. Co	468.3	62.7	27.6	San Pedro	Baltimore	Crude oil	([18])	9,776	6,903
Virginian	1	12.30	1	14.02	1	22.05	1	22.05	American	American-Hawaiian Line	491.5	58.2	16.4	Seattle	New York	General	899	10,491	7,546
Genoa Maru	1	5.30	1	14.50	1	23.13	1	23.15	Japanese	Nippon Yusen Kaisha	425.0	53.6	16.6	Hongkong	Boston	([17])	3,280	6,897	5,063

[1] Tanker. [13] Transport. [14] Wool, cotton, nitrates, and metals. [15] Rubber, tea, beans, and general. [16] Copper, nitrate, grain, etc. [17] Tea, porcelain, tin, and general. [18] 85,837 barrels.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 26	Abangarez	United Fruit Co	New Orleans via Habana.	August 26	Calamares	United Fruit Co	New York via Habana.
August 26	Calamares	United Fruit Co	New York via Habana.	August 27	Abangarez	United Fruit Co	Bocas del Toro.
August 27	Haiti	French Line	St. Nazaire via wayports.	August 28	Stuyvesant	Royal Netherlands W. I. Mail	Port Limon.
August 27	Stuyvesant	Royal Netherlands W. I. Mail	Amsterdam via wayports.	August 29	Pastores	United Fruit Co	Port Limon.
August 28	San Gil	United Fruit Co	Boston via Habana.	August 30	San Gil	United Fruit Co	Boston via Port Limon.
August 28	Pastores	United Fruit Co	New York via Habana.	August 30	Sixaola	United Fruit Co	Colombian ports.
August 28	Turrialba	United Fruit Co	New Orleans via Habana.	August 30	Abangarez	United Fruit Co	New Orleans.
August 28	Dakarian	Leyland Line	Liverpool via wayports.	August 30	Turrialba	United Fruit Co	New Orleans and wayports.
August 29	Sixaola	United Fruit Co	New York via Kingston.	August 30	Haiti	French Line	St. Nazaire and wayports.
August 30	Abangarez	United Fruit Co	Bocas del Toro.	August 30	Dakarian	Leyland Line	Tampa, Fla.
August 30	Ulysses	Panama Railroad Steamship Line	Norfolk.	September 1	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
August 31	Stuyvesant	Royal Netherlands W. I. Mail	Port Limon.	September 1	Bayano	Elders & Fyffes, Ltd	Kingston.
September 1	Bayano	Elders & Fyffes, Ltd	Port Limon.	September 1	Stuyvesant	Royal Netherlands W. I. Mail	Amsterdam via wayports.

PORT OF BALBOA.

August 27	Regulus	R. S. Silva & Co	Caleta Buena via Arica.	August 27	Regulus	R. S. Silva & Co	San Francisco
August 27	Strombus [1]	Anglo-Saxon Petroleum Co	San Pedro.				
August 30	Guardian	All-America Cable Co	High seas.				
August 31	Anomia 1	Anglo-Saxon Petroleum Co	San Pedro.				

[1] Tanker.

*Other than ships passing through the Canal.

Excavation from The Panama Canal.

Excavation from the prism of the Panama Canal by the forces of the United States, to July 1, 1923, aggregated 262,392,915 cubic yards, according to a compilation recently completed by engineers of the Dredging Division.

In addition, the forces of the United States have excavated, to that date, 54,534,135 cubic yards from places outside of the Canal prism proper, principally in the terminal harbors.

The total of these two figures is 316,927,050 cubic yards.

Excavation by the French companies useful to the completion of the present Canal has been estimated at 29,908,000 cubic yards.

The Canal of to-day accordingly represents an aggregate excavation of 346,835,050 cubic yards.

Since 1914 the bulk of the excavation has been classed as maintenance; and of this the greater portion has been due to slides in the Gaillard Cut.

The 316,927,050 cubic yards excavated by the American forces is equivalent to that which would come out of a hole 14 feet square driven clear through the earth, 8,000 miles.

The progress of the excavation by years is shown in the appended tabulation, which shows the output by fiscal years, and the totals of various classes accomplished at the ends of the fiscal years 1904 to 1923, inclusive.

(Tabulation shown on page 72, column 1.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 1, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Abangarez	United Fruit Co	August 26	August 27	245	149
Calamares	United Fruit Co	August 26	August 26	11	98
Duendes	Pacific Steam Navigation Co	August 26	August 26	42	.....
Aysen	South American Line	August 26	August 30	32	554
San Francisco	Johnson Line	August 27	August 27	70	.....
Haiti	French Line	August 27	August 29	56	599
Sirius	U. S. Navy	August 28	August 29	101	.....
Pastores	United Fruit Co	August 28	August 29	290	276
Turrialba	United Fruit Co	August 28	August 30	629	74
San Gil	United Fruit Co	August 28	August 30	9	97
Ceres	Royal Netherlands W. I. Mail	August 28	August 28	75	35
Stuyvesant	Royal Netherlands W. I. Mail	August 28	August 28	184	.....
Dakarian	Leyland Line	August 28	August 30	771	8
Sixaola	United Fruit Co	August 29	August 30	95	100
Santa Teresa	Grace Line	August 29	August 30	37	23
Hainon	Roland Line	August 29	August 30	83	.....
Siam	East Asiatic Co	August 29	August 30	119	.....
Abangarez	United Fruit Co	August 30	August 30	18	4
Salvador	Paicfic Steam Navigation Co	August 30	.....	310	.....
Ebro	Pacific Steam Navigation Co	August 30	August 30	5	166
Manavi	Pacific Steam Navigation Co	August 30	.....	419	.....
Ulysses	Panama Railroad Steamship Line	August 30	.....	[1]12,059	.....
Gen. G. W. Goethals	Panama Railroad Steamship Line	August 31	September 3	275	.....
Huallaga	Peruvian Line	August 31	.....	2,518	.....
Ivernia	Panama Agencies	September 1	September 2	391	.....
Bayano	United Fruit Co	September 1	September 1	15	.....

[1] Coal.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 1, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Shunko Maru	Osaka Shosen Kaisha	August 26	August 26	37	
Venezuela	Pacific Mail Steamship Co	August 26	August 26	126	
Aysen	South American Steamship Line	August 26	August 27	1	
Acajutla	Pacific Steam Navigation Co	August 26	August 26	14	3
San Francisco	Johnson Line	August 27	August 28	187	
Strombus	Anglo-Saxon Petroleum Co	August 27	September 2	7,611	
Sirius	U. S. Government	August 28	August 28	2	
Haimon	Roland Line	August 29	August 29	45	
Salvador	Pacific Steam Navigation Co	August 29	August 30	35	
Manavi	Pacific Steam Navigation Co	August 30	August 30	11	
Anomia	Anglo-Saxon Petroleum Co	August 31	September 2	6,792	
Edgemoor	U. S. Government	September 1	September 3	1	50
Genoa Maru	Nippon Yusen Kaisha	September 1	September 1	223	

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 6, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Statement of Panama Canal Excavation, Including Construction, Maintenance and Auxiliary.—Continued from page 70.

Date.	Output for fiscal year July1 to June 30.			Quantities in cubic yards excavated by United States Government at end of each fiscal year.								
	Wet.	Dry.	Total.	Prism.		Outside.		Total wet.	Total dry.	Total prism.	Total outside.	Grand total.
				Wet.	Dry.	Wet.	Dry.					
1904	.....	87,663	87,663	.....	87,663	.....	.....	.....	87,663	87,663	.....	87,663
1905	111,376	714,088	825,464	.....	801,751	111,376	.....	111,376	801,751	801,751	111,376	913,127
1906	1,916,459	1,506,562	3,423,021	.....	2,308,313	2,027,835	.....	2,027,835	2,308,313	2,308,313	2,027,835	4,336,148
1907	2,350,213	6,272,839	8,623,052	81,352	8,368,946	4,296,696	212,206	4,378,048	8,581,152	8,450,298	4,508,902	12,959,200
1908	10,399,417	17,579,958	27,979,375	10,292,701	24,464,905	4,484,764	1,696,205	14,777,465	26,161,110	34,757,606	6,180,969	40,938,575
1909	17,073,144	22,681,315	39,754,459	25,549,179	45,960,398	6,301,430	2,873,027	31,850,609	48,842,425	71,518,577	9,174,457	80,693,034
1910	15,916,168	19,903,480	35,819,648	37,503,821	65,702,233	10,262,956	3,043,672	47,766,777	68,745,905	103,206,054	13,306,628	116,512,682
1911	18,325,829	20,140,812	38,466,641	49,581,140	85,642,367	16,511,466	3,244,350	66,092,606	88,886,717	135,223,507	19,755,816	154,979,323
1912	14,437,094	19,343,134	33,780,228	60,169,660	104,855,012	20,360,040	3,374,839	80,529,700	108,229,851	165,024,672	23,734,879	188,759,551
1913	14,801,007	16,978,077	31,779,084	71,888,269	120,855,603	23,442,438	4,352,325	95,330,707	125,207,928	192,743,872	27,794,763	220,538,635
1914	16,725,826	4,903,237	21,629,063	83,726,735	124,300,805	28,329,798	5,810,360	112,056,533	130,111,165	208,027,540	34,140,158	242,167,698
1915	13,998,280	212,150	14,210,430	92,225,915	124,300,805	33,828,898	6,022,510	126,054,813	130,323,315	216,526,720	39,851,408	256,378,128
1916	15,123,129	55,049	15,178,178	105,143,780	124,300,805	36,034,162	6,077,559	141,177,942	130,378,364	229,444,585	42,111,721	271,556,306
1917	15,174,788	.....	15,174,788	116,452,370	124,300,805	39,900,360	6,077,559	156,352,730	130,378,364	240,753,175	45,977,919	286,731,094
1918	6,456,596	.....	6,456,596	119,793,950	124,300,805	43,015,376	6,077,559	162,809,326	130,378,364	244,094,755	49,092,935	293,187,690
1919	4,448,600	.....	4,448,600	122,267,150	124,300,805	44,990,776	6,077,559	167,257,926	130,378,364	246,567,955	51,068,335	297,636,290
1920	4,630,010	.....	4,630,010	125,978,960	124,300,805	45,908,976	6,077,559	171,887,936	130,378,364	250,279,765	51,986,535	302,266,300
1921	5,481,500	.....	5,481,500	130,059,260	124,300,805	47,309,876	6,077,559	177,369,136	130,378,364	254,360,065	53,387,435	307,747,800
1922	4,155,700	.....	4,155,700	134,093,160	124,300,805	47,431,976	6,077,559	181,525,136	130,378,364	258,393,965	53,509,535	311,903,500
1923	5,023,550	.....	5,023,550	138,092,110	124,300,805	48,456,576	6,077,559	186,548,686	130,378,364	262,392,915	54,534,135	316,927,050

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

End Lock Binders.

A supply of 100 "Miller End Lock Binders," with key, size 5 inches by 8 inches, is available for official issue, free of charge.

Any division interested can secure same from Storekeeper, Supply Department, Administration Building, Balboa Heights.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., September 12, 1923. No. 5.

Tanker Traffic Through the Panama Canal in August, 1923.

The number of tankers transiting the Canal during August was 173, the same number as during June, 1923, and two more than in July, 171. The tonnage for August was about 25,000 tons more than either June or July. Tankers comprised approximately 46 per cent of the total net tonnage of all vessels passing through the Canal during August.

The following statement shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during August, segregated by nationality of vessels:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
United States	83	495,324	$363,604.41	41,763
British	11	57,243	46,461.08	26,385
Norwegian	1	5,520	4,049.25	.....
Totals, August, 1923	95	558,087	414,114.74	68,148
Totals, July, 1923	87	501,537	374,940.25	13,366
Totals, June, 1923	88	513,690	380,224.05	47,859
Pacific to Atlantic.				
United States	66	398,420	417,931.40	771,307
British	10	62,411	64,601.38	96,345
Dutch	1	5,521	5,801.25	9,000
Norwegian	1	4,916	5,393.75	9,867
Totals, August, 1923	78	471,268	493,727.78	886,519
Totals, July, 1923	84	498,730	513,172.70	914,150
Totals, June, 1923	85	491,479	521,017.86	933,702

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Tankships routed to Los Angeles.				
August, 1923	81	482,677	$348,840.65	.....
July, 1923	78	454,187	331,489.32	830
June, 1923	73	438,812	318,884.81	.....
Tankships routed from Los Angeles.				
August, 1923	70	361,388	380,780.17	720,084
July, 1923	72	429,458	443,001.15	828,728
June, 1923	71	426,929	452,906.05	821,482

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 8, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ramapo [1]	29	17.15	2	6.10	2	13.34	7	12.02	American	U. S. Navy	476.0	60.0	.....	Cristobal	Los Angeles	Ballast	.....	.....	.....
Ivernia	1	14.20	2	7.30	2	14.25	3	10.45	Swedish	Swedish Lloyds	274.11	40.0	18.10	New Orleans	Guayaquil	General	2,096	2,243	1,479
W. S. Rheem [1]	1	19.45	2	7.48	2	15.22	2	16.41	American	Standard Oil Co	500.0	68.2	22.0	Baltimore	San Pedro	Ballast	.....	11,224	7,860
Mundra	1	23.25	2	8.25	2	16.30	2	17.30	British	British-India Steam Nav. Co	450.0	58.0	22.7	New York	Adelaide	General	7,552	8,465	5,713
W. F. Burdell [1]	2	3.20	2	9.05	2	16.40	2	17.40	American	Pure Oil Steamship Co	435.0	56.0	20.0	Philadelphia	San Pedro	Ballast	.....	7,434	5,093
Trebartha	2	6.55	2	9.52	2	18.12	2	19.25	British	Hain Steamship Co	400.1	52.1	25.5	Port Arthur	Townsville	Case oil	6,424	6,005	4,416
Dixie Arrow [1]	2	7.00	2	10.05	2	17.21	2	18.25	American	Standard Transportation Co	468.3	62.7	20.0	Providence	San Pedro	Ballast	.....	9,744	7,140
F. Q. Basstow [1]	2	7.30	2	11.05	2	18.53	2	20.08	American	Standard Oil Co	500.0	68.2	18.10	New York	San Pedro	Ballast	.....	10,530	7,604
Samuel Q. Brown [1]	2	10.42	2	11.36	2	19.34	2	20.41	American	Tidewater Oil Co	424.4	58.2	18.0	New York	San Pedro	Ballast	.....	7,333	5,246
Gargoyle [1]	2	11.05	2	12.12	2	20.25	2	23.58	American	Vacuum Oil Co	425.0	57.2	19.0	Paulsboro	San Francisco	Lubricating oil	1,000	7,510	4,989
Gen. G. W. Goethals	31	18.28	3	6.20	3	13.27	3	14.40	American	Panama Railroad Steamship Line	353.0	48.7	22.0	New York	Guayaquil	General	1,009	5,226	3,617
Zealandic	2	15.12	3	7.18	3	15.31	3	16.35	British	White Star Line	477.5	63.1	27.0	Liverpool	Lyttleton	(8)	6,121	11,754	8,452
Takaoka Maru	3	3.25	3	8.05	3	16.26	3	22.27	Japanese	Nippon Yusen Kaisha	461.0	58.0	18.6	New York	Yokohama	General	4,700	7,989	5,856
Elmpark	3	3.45	3	8.36	3	16.45	3	17.43	British	J. and J. Denholm	409.0	53.0	26.0	Galveston	Vancouver	Sulphur	6,720	6,565	4,728
Kazembe	3	7.35	3	9.22	3	17.24	3	18.03	American	Ellerman & Bucknall	400.0	50.0	24.5	New York	Auckland	General	3,950	5,611	4,102
Clan Matheson	3	6.55	4	6.50	4	13.47	4	15.05	British	Clan Steamship Line	395.0	51.3	20.1	New York	Sydney	General	6,000	6,085	4,179
O-6 [2]	.....	.....	4	6.25	4	13.47	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....
O-10 [2]	.....	.....	4	6.25	4	13.47	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....
O-1 [2]	.....	.....	4	6.35	4	14.22	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....
O-2 [2]	.....	.....	4	6.35	4	14.22	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....
Riverton	3	20.15	4	7.35	4	15.24	4	16.33	British	R. Chapman & Son	325.0	46.0	17 6	St. Vincent	San Francisco	Ballast	.....	3,464	2,473
Fulton [3]	.....	.....	4	7.55	4	17.21	.....	.....	American	U. S. Navy	216.0	.....	.....	Cristobal	Balboa	Ballast	.....	.....	.....
O-5 [2]	.....	.....	4	7.55	4	16.08	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....
L. J. Drake [1]	3	21.17	4	8.07	4	16.10	4	17.24	American	Standard Oil Co	419.6	57.2	22.0	New York	San Pedro	Ballast	.....	7,406	4,839
Quail [4]	.....	.....	4	8.35	4	16.08	5	21.41	American	U. S. Navy	180.0	35.6	.....	Cristobal	Balboa	Ballast	.....	.....	.....
No. 285 [5]	.....	.....	4	8.35	.....	16.08	.....	.....	American	U. S. Navy	105.0	14.8	.....	Cristobal	Balboa	Ballast	.....	.....	.....
James B. Duke	4	7.40	4	8.39	4	17.12	4	18.15	American	Garland Steamship Corporation	385.0	51.0	18.0	New York	Seattle	General	3,000	6,242	4,471
Byron D. Benson [1]	2	22.25	4	10.50	4	18.03	4	19.15	American	Tidewater Oil Co	465.4	60.2	20.4	New York	San Pedro	Ballast	.....	8,546	6,095
City of Oran	4	6.19	4	13.15	4	19.52	4	20.56	British	George Smith & Son	464.0	58.0	20.2	New York	Yokohama	General	4,477	9,533	7,417
Borgland [6]	4	16.55	5	6.25	5	13.29	6	5 11	Norwegian	Peter Olsen	362.0	51.5	22.9	Christiania	San Francisco	General	5,400	5,274	3,886
J. M. Danziger [1]	4	21.10	5	7.18	5	14.00	5	22.50	American	Pan-American Petroleum Co	430.0	58.2	19.3	New York	San Pedro	Ballast	.....	6,963	4,886
J. N. Pew [1]	5	3.25	5	8.10	5	15.00	5	19.58	American	Sun Oil Co	480.5	66.0	19.0	Chester	San Pedro	Ballast	.....	9,494	6,612
Agwisun [1]	5	8.40	5	8.54	5	15.53	6	0.23	American	Atl. Gulf & W. I. S. S. Co	429.3	59.2	18.0	New York	San Pedro	Ballast	.....	7,612	5,402
Mineola	4	22.05	5	10.37	5	15.46	6	2.00	American	Grace Line	298.6	40.0	17.0	New York	Paeasmayo	General	1,740	2,835	1,805
Rio Gatun [7]	4	.....	5	.....	5	12.20	.....	.....	Panaman	A. R. Eckhart	.....	.....	.....	Cristobal	Gatun	Unknown	.....	8	8

[1] Tanker. [2] Submarine. [3] Sub tender. [4] Tug. [5] Sub chaser. [6] Motor ship. [7] Launch. [8] Live stock and general.

Suverie	5	15.48	6	6.26	6	13.32	6	15.41	British	Andrew Weir & Co	460.0	55.0	19.0	Newport News	Portland	Ballast		8,271	6,249
Port Napier	5	18.45	6	7.22	6	14.26	6	15.33	British	Com. & Dominion Line	490.2	61.0	25.0	London	Napier	General	6,715	10,987	8,165
Cerro Azul [1]	5	23.20	6	7.55	6	15.21	6	16.27	American	Pan-American Petroleum Co	480.6	65.9	22.0	New York	San Pedro	Ballast		9,398	6,453
Poseidon	6	7.22	6	9.50	6	16.24	6	17.31	German	Hamburg-American Line	453.0	57.5	20.0	Antwerp	Guayaquil	General	3,471	7,684	5,234
Manavi	30	17.40	6	10.30	6	17.18	6	23.05	British	Pacific Steam Navigation Co	216.0	35.1	13.0	Cristobal	Guayaquil	General	364	1,357	884
Robin Hood	6	11.05	6	11.15	6	18.18	7	0.42	American	Seas Steamship Co	424.0	55.0	27.6	New York	Vancouver	General	9,170	7,473	5,533
Suduffco	6	11.10	6	11.30	6	19.04	6	20.16	American	Submarine Boat Corporation	335.6	46.0	20.8	Newark	San Pedro	General, steel	3,703	3,984	2,612
Teno	6	5.35	6	13.00	6	19.52	6	20.54	Chilean	Chilean Line	421.8	56.0	24.0	New York	Valparaiso	General	1,187	7,758	4,672
Heffron	6	20.25	7	6.28	7	13.33	7	14.38	American	Tampa Interocean Co. (S. B.)	440.0	56.0	22.0	New Orleans	Shanghai	General	5,667	8,349	6,201
Walter Jennings [1]	6	20.58	7	7.35	7	14.55	7	16.05	American	Standard Oil Co	499.2	68.1	20.0	New York	San Pedro	Ballast		11,037	7,995
Iowan	6	22.50	7	8.10	7	15.39	7	19.24	American	American-Hawaiian Line	407.7	53.7	18.0	New York	Los Angeles	General	3,248	7,091	5,002
W. M. Irish [1]	7	9.11	7	9.30	7	16.16	7	17.25	American	Atlantic Refining Co	435.0	56.0	17.0	Philadelphia	San Pedro	Ballast		7,392	5,453
Huallaga	6	16.02	7	10.00	7	17.20	7	19.36	Peruvian	Peruvian Line	360.0	44.7	20.3	Cartagena	Callao	([10])	257	4,514	2,386
Eagle	7	14.47	8	6.20	8	13.22	8	18.48	American	Standard Transportation Co	410.0	56.0	21.0	New York	Seattle	General	4,770	8,243	6,266
Tjibesar	7	15.10	8	7.20	8	14.15	8	20.15	Dutch	Java China Japan Line	500.0	63.6	18.6	Rotterdam	Portland	Ballast			
Endicott	7	16.45	8	7.35	8	15.01	8	16.09	American	Barber Line (S. B.)	401.6	54.9	25.5	New York	Honolulu	Case oil, general	7,362	6,929	5,182
Mevania [1]	7	19.10	8	8.42	8	15.57	8	22.36	American	C. D. Mallory & Co	425.8	57.0	18.0	Fall River	San Pedro	Ballast		7,485	5,212
Walter A. Luckenbach	7	23.35	8	9.12	8	16.55	8	21.39	American	Luckenbach Line	446.5	56.1	25.0	Boston	San Pedro	General	6,100	8,785	6,567
Munrio	7	23.40	8	9.50	8	17.49	8	22.59	American	Munrio Steamship Corporation	333.6	48.2	19.0	Baltimore	San Pedro	General	3,200	4,165	3,066
J. A. Moffett, Jr [1]	8	6.05	8	10.25	8	17.55	8	19.12	American	Standard Oil Co	499.2	68.0	19.0	New York	San Pedro	Ballast			
Jersey City	8	10.40	8	11.22	8	19.26	8	21.30	British	Reardon Smith Line	411.8	55.0	26.5	New York	Adelaide	General	7,000	6,466	4,520
Sciota [9]	7	13.32	8	11.20	8	13.21			American	U. S. Navy	155.0	30.0		Cristobal	Gatun Lake	Ballast			

[1] Tanker. [9] Tug. [10] General cargo and 300 heads of cattle.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Edgemoor [11]	1	0.35	2	7.06	2	15.35	2	15.35	American	U. S. Army	409.6	54.2	17.0	San Francisco	Brooklyn	Army supplies	58		
Penang [12]	1	8.00	2	7.52	2	19.09	3	9.00	Finnish	John Nurminen, Helsington	80.9	12.2	8.0	Guanape	Wilmington	Guano	3,200	2,079	1,889
Choyo Maru	1	7.05	2	8.20	2	17.10	2	17.10	Japanese	Toyo Kisen Kaisha	400.0	53.0	25.6	Caleta Coloso	Alexandria	Nitrate of soda	7,677	6,186	4,457
S. M. Spalding [1]	1	17.30	2	9.33	2	17.30	2	17.30	American	Pan-American Pet. & Trans. Co	435.0	56.0	26.3	San Pedro	New Orleans	Crude oil	10,300	7,331	5,080
George H. Jones [1]	1	20.00	2	9.45	2	18.18	2	19.05	American	Standard Oil Co	429.3	59.2	25.6	San Pedro	New York	Crude oil	10,900	7,689	5,383
Swiftlight [1]	2	2.00	2	11.45	2	20.00	2	20.00	American	C. D. Mallory & Co	464.6	60.2	26.0	San Pedro	Fall River	Crude oil	11,200	8,473	6,050
San Juan	2	9.20	2	14.05	2	21.05			American	Pacific Mail Steamship Co	283.0	37.0	15.2	San Francisco	Cristobal	General, coffee	238	2,379	1,593
Geo. Allen	3	2.00	3	7.50	3	14.45	3	14.45	American	Garland Steamship Corporation	385.3	51.2	25.6	Everrett	Philadelphia	Lumber	4,330	6,224	4,465
Herakles	3	6.00	3	8.45	3	16.50	3	18.05	Norwegian	E. I. Dupont de Nemours & Co	389.8	54.1	25.6	Iquique	New Orleans	Nitrate	8,153	5,680	4,220
Texel	3	4.00	3	9.00	3	17.25	4	0.05	Dutch	Wm. Ruyes & Zones	375.0	51.6	22.6	Iquique	Azores [14]	Nitrate	6,600	5,319	3,720
Poplar Branch	3	8.10	3	9.51	3	18.00	3	19.18	British	Gulf Line	395.8	56.2	23.6	Corral	Liverpool	Nitrate, cotton	7,463	6,640	5,099
Brattingsborg	3	8.45	3	10.53	3	19.22	3	22.45	Danish	C. K. Hansen	315.8	47.0	20.11	Iquique	St. Thomas [14]	Nitrate of soda	4,669	4,350	2,390
Erviken	3	8.45	3	10.57	3	18.40	3	18.40	Norwegian	W. Allen & Co	420.0	54.0	19.6	Cebu	New Orleans	Hemp	6,000	6,979	5,131
Thorgerd	2	19.00	3	11.54	3	20.45	3	20.45	Norwegian	Munson Steamship Line	251.0	43.8	19.8	Rio Congo	New Orleans	Mahogany logs	2,000	2,706	1,762
Santa Elisa	3	10.00	3	12.37	3	19.40	3	22.48	American	Grace Line	360.3	51.7	23.6	Talcahuano	New York	([15])	3,399	5,957	4,325
It [13]			3	10.15	3	11.57			American	E. H. Anelam	15.6	4.6		Balboa	Pedro Miguel	Ballast			
Victolite [1]	3	16.45	4	7.09	4	15.15	4	15.15	British	Imperial Oil Co., Ltd	500.4	68.2	29.6	Talara	New York	Crude naptha	14,000	11,049	7,732
San Lamberto [1]	3	17.15	4	7.46	4	17.00	4	17.00	British	Anglo-Mexican Petroleum Co	395.3	55.2	26.4	San Pedro	Tampico	Crude oil	7,989	6,741	4,345

[1] Tanker. [11] U. S. Army transport. [12] Bark. [13] Launch. [14] For orders. [15] Copper bars and ores, nitrate, cotton, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Dean Emery [1]	4	5.15	4	8.29	4	17.13	4	17.13	American	Pan-American Pet. & Trans. Co	429.3	59.2	28.0	San Pedro	New Orleans	Crude oil	10,700	7,709	5,517
Chertsey	4	5.50	4	19.21	4	17.50	4	19.05	British	Watts, Watts & Co	355.4	45.0	23.6	Junin	Santander	Nitrate	5,639	4,009	2,948
Benavon	4	7.45	4	9.29	4	19.10	5	1.25	British	Ben Line Steamers, Ltd	360.0	46.1	23.0	Portland	Cristobal [16]	Wheat	5,384	4,218	3,053
Ardmore [1]	4	8.05	4	10.43	4	20.00	4	20.00	American	Standard Oil Co. of N. J	449.5	59.6	27.4	San Pedro	New York	Crude oil	10,500	8,612	6,457
Nevadan	4	13.45	4	14.34	4	21.45	4	21.45	American	American-Hawaiian Line	368.6	55.2	.....	Portland	Philadelphia	General	3,016	5,671	3,627
Sciota [17]	.....	.....	4	15.24	4	22.00	8	11.20	American	U. S. Navy	155.0	30.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Marore	4	12.00	4	16.42	5	14.00	5	14.55	American	Ore Steamship Corporation	550.3	72.2	32.11	Cruz Grande	Baltimore	Iron ore	20,000	15,551	4,297
W. E. Hutton [1]	4	14.55	5	8.01	5	15.22	5	16.20	American	Pure Oil Steamship Co	435.0	56.0	27.6	Los Angeles	New York	Crude petroleum	9,611	7,481	5,120
H. M. Storey [1]	4	18.30	5	8.45	5	17.00	5	17.00	American	Standard Oil Co	500.0	68.2	29.0	Los Angeles	Baltimore	Crude oil	15,000	11,224	7,849
Saint Andre	4	19.30	5	8.56	5	17.40	5	21.10	French	French Line	397.9	50.3	28.2	Valparaiso	Havre	General	5,716	5,917	4,146
Almelo	5	0.10	5	9.37	5	18.45	6	13.30	Dutch	Royal Dutch W. I. Mail	440.0	62.6	26.0	Mollendo	Europe	General	9,220	9,403	6,653
Agwistone [1]	5	3.45	5	11.21	5	19.15	5	19.15	American	Ward Line	499.9	68.1	27.9	San Pedro	New York	Crude oil	15,000	10,600	7,526
Argon [1]	4	14.00	5	7.18	5	14.30	5	14.30	American	Standard Transportation Co	435.6	56.2	28.6	San Pedro	New York	Crude oil	9,584	7,386	5,183
Arizonan	5	16.30	6	7.05	6	14.40	6	14.40	American	American-Hawaiian Line	470.1	57.2	18.0	San Francisco	Boston	General	1,656	9,140	6,684
M. F. Elliott [1]	5	17.20	6	8.15	6	15.55	6	15.55	American	Standard Oil Co. of N. J	425.0	57.2	28.8	San Pedro	New York	Crude oil	10,500	7,481	4,946
Denderah	5	17.30	6	8.44	6	16.12	6	17.45	German	Kosmos Line	360.5	51.0	17.8	Puntarenas	Hamburg	General	2,200	4,924	3,524
W. C. Teagle [1]	5	22.35	6	9.53	6	18.44	6	18.44	American	Standard Oil Co. of N. J	499.1	68.2	29.0	San Pedro	New York	Crude oil	15,109	10,991	7,986
Ortega	5	21.50	6	10.04	6	17.30	6	19.45	British	Pacific Steam Navigation Co	465.0	56.0	25.4	Talcahuano	Liverpool	General	4,779	8,345	4,998
Thomas H. Wheeler [1]	5	20.25	6	10.12	6	19.50	6	19.50	American	Standard Oil Co. of N. J	425.0	57.2	28.6	San Pedro	New York	Crude oil	10,065	7,481	2,769
Steel Scientist	6	4.30	6	10.46	6	20.37	6	20.37	American	Isthmian Line	424.2	56.2	21.0	Los Angeles	New York	([19])	6,132	7,611	5,454
Saehsen	6	5.45	6	13.00	6	21.50	6	21.50	German	William Dimond Co	468.0	58.2	26.0	San Francisco	Hamburg	Bulk, general	8,563	9,624	6,532
Geo. Washington	6	11.30	7	7.12	7	14.10	7	14.10	Norwegian	Peter Olsen	445.4	55.3	28.0	San Francisco	Hull	General	8,986	7,505	5,626
Laura C. Hall	6	15.40	7	9.12	7	17.05	11	6.30	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	([20])	79	132	72
Ucayali	7	4.45	7	10.07	7	17.20	.....	.....	Peruvian	Peruvian Line	374.7	46.3	20.6	Callao	Cartagena	General	2,222	4,466	2,405
Santa Barbara	6	22.18	7	11.37	7	18.08	7	18.08	American	Pacific Mail Steamship Co	404.6	53.9	25.0	San Francisco	New York	Lumber, general	6,682	6,789	4,746
Canada [18]	6	18.15	7	12.13	7	19.35	7	19.35	Swedish	Johnson Line	440.0	56.0	26.6	San Francisco	Gothenborg	General	7,884	7,476	5,456
Chilore	7	2.06	7	12.47	7	23.15	7	23.15	American	Ore Steamship Corporation	549.6	72.2	33.2	Gruz Grande	Baltimore	Iron ore	20,000	14,538	9,348
Algonquin [1]	7	19.25	8	6.52	8	14.55	8	14.55	American	Standard Transportation Co	435.0	56.0	27.0	San Pedro	Providence	Crude oil	9,660	7,602	5,337
Pomona	7	20.00	8	8.10	8	15.10	8	15.55	American	Weyerhaeuser Lumber Co	440.0	56.0	24.0	Everrett	Baltimore	Lumber, general	7,714	8,300	6,026
Balboa	8	9.40	8	10.36	8	17.41	10	17.10	Colombian	Compania Costanera Colombiana	190.0	29.1	14.0	Tumaco	Pto. Colombia	General	326	737	335
Cissy	8	10.00	8	10.48	8	18.40	8	19.40	Norwegian	New Orleans & S. A. S. S. Co	289.5	44.2	19.1	Talcahuano	Habana	Copper, nitrates	3,501	2,976	2,119
Suricheo	8	11.15	8	13.32	8	21.15	8	21.15	American	Transmarine Corporation	324.0	46.2	23.8	San Francisco	Port Neward	([21])	4,550	3,984	2,612
Hugoton [1]	8	13.24	8	15.01	8	22.20	8	22.20	American	C. D. Mallory & Co	434.8	56.2	27.0	San Pedro	Baton Rouge	Crude oil	10,522	7,429	5,175

[1] Tanker. [16] For orders. [17] Tug. [18] Motor ship. [19] Lumber, canned goods, and general. [20] Coffee, gold, and platinum. [21] Copper, lumber, and canned salmon.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 84, column 2.)

Commercial Traffic Through the Panama Canal in August, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	123	540,803	665,843	853,426	542,065	$538,412.26	301,743
From United States to South America:							
British	5	22,140	24,704	34,516	22,688	21,714.93	8,511
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	1,344
Danish	1	1,345	2,113	2,327	1,335	1,681.25	1,374
Japanese	1	4,086	5,081	6,577	4,044	3,658.32	.....
Norwegian	1	3,053	3,071	4,101	3,061	3,691.20	2,326
United States	11	39,833	49,012	64,678	39,540	43,846.46	27,428
Totals	20	73,969	88,686	119,509	74,644	78,982.16	40,983
From United States to Far East:							
British	5	20,816	28,483	33,123	20,903	26,020.00	32,440
Japanese	3	11,339	13,245	17,141	11,252	14,007.50	10,990
United States	8	34,773	48,433	55,599	34,583	43,466.25	73,095
Totals	16	66,928	90,161	105,863	66,738	83,493.75	116,525
From Europe to United States:							
British	9	31,161	40,680	49,647	31,090	34,082.51	24,067
Dutch	1	4,547	7,056	7,310	4,495	5,683.75	2,378
French	1	4,380	4,317	5,351	3,339	5,180.40	4,800
German	2	4,859	7,731	8,124	4,826	6,073.75	5,405
Japanese	1	4,365	4,397	5,870	4,266	5,276.40	8,239
Norwegian	2	9,908	11,157	14,393	9,547	9,685.50	9,400
Swedish	1	2,253	4,019	3,745	2,858	2,816.25	6,230
United States	2	10,405	12,945	16,932	10,333	9,320.40	.....
Totals	19	71,878	92,302	111,372	70,754	78,118.96	60,520
From Europe to South America:							
British	7	26,596	32,561	42,907	26,532	31,585.84	15,959
Chilean	1	591	598	1,034	593	717.60	800
Dutch	4	8,131	13,710	13,193	8,138	10,163.75	16,466
German	3	10,062	12,486	16,266	10,169	12,577.50	11,198
Italian	1	4,051	5,051	7,028	4,175	5,063.75	870
Norwegian	1	4,613	5,049	5,748	4,269	3,635.28	.....
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	236
Totals	18	57,328	73,352	91,793	57,218	67,848.72	45,529
From United States to Australasia:							
British	7	30,845	39,980	45,487	29,257	38,137.75	30,440
Swedish	1	2,711	3,972	4,439	3,380	3,388.75	5,703
United States	1	3,604	4,480	5,816	3,604	4,505.00	4,390
Totals	9	37,160	48,432	55,742	36,241	46,031.50	40,533
From United States to Hawaii:							
United States	1	4,520	5,698	7,461	4,520	5,650.00	10,188
From West Indies to South America:							
British	2	3,474	3,762	5,814	3,601	2,708.64	.....
Foreign ships in ballast, United States coastwise:							
British	4	22,491	26,071	36,709	22,497	18,771.12	.....
Japanese	1	4,081	5,077	6,586	4,038	3,655.44	.....
Norwegian	2	3,430	3,903	5,351	3,195	4,287.50	13
Totals	7	30,002	35,051	48,646	29,730	26,714.06	13
From Cristobal, C. Z. to United States:							
United States	2	3,516	4,369	5,812	3,516	4,395 00	4,054
From Cristobal, C. Z. to Central American ports:							
British	3	1,349	1,513	2,409	1,404	1,686.25	1,853
United States	1	175	175	175	175	210.00	175
Totals	4	1,524	1,688	2,584	1,579	1,896.25	2,028

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net	Tolls.	Tons of cargo.
From Cristobal, C. Z. to South America:							
British	2	612	956	1,152	715	$765.00	336
Chilean	3	5,071	8,827	10,165	6,160	6,338.75	1,664
Peruvian	1	989	2,405	3,305	1,514	1,236.25	616
Totals	6	6,672	12,188	14,622	8,389	8,340.00	2,616
From United States to Mexico:							
United States	2	2,470	2,987	3,793	2,533	2,884.47	2,000
From Europe to Australasia:							
British	4	18,329	22,253	29,200	18,432	22,901.25	22,135
French	1	4,287	5,364	7,129	4,332	5,358.75	2,487
Totals	5	22,616	27,617	36,329	22,764	28,260.00	24,622
From United States to Canada:							
Norwegian	1	5,064	5,112	6,350	3,458	3,798.00	.....
Japanese	1	4,374	5,687	6,965	4,288	5,467.50	4,132
United States	1	3,752	4,562	6,263	3,725	4,690.00	7,287
Totals	3	13,190	15,361	19,578	11,471	13,955.50	11,419
From Mexico to South America:							
British	3	12,076	13,897	20,667	12,163	15,095.00	26,385
From Canada to Far East:							
French	1	4,382	6,749	7,113	4,410	5,477.50	9,452
From Europe to Canada:							
British	2	8,564	10,968	13,855	8,636	10,705.00	5,173
Danish	1	4,223	5,303	6,637	4,223	5,278.75	8,546
Totals	3	12,787	16,271	20,492	12,859	15,983.75	13,719
From east coast of Canada to west coast of Canada:							
British	1	4,500	4,999	5,704	3,531	5,625.00	4,350
From Canada to Australasia:							
British	2	8,775	9,825	11,948	7,350	10,700.95	7,063
From West Indies to Australasia:							
British	1	82	82	90	90	61.50	.....
From West Indies to United States:							
United States	1	4,172	5,383	6,690	4,165	3,875.76	.....
From South America to Far East:							
Japanese	1	3,590	4,101	5,760	3,548	4,487.50	2,550
From South America to United States:							
United States	2	10,456	13,431	16,799	10,044	11,335.11	5,474
From east coast of South America to west coast of South America:							
Colombian	1	334	335	864	614	402.00	514
Peruvian	2	3,021	5,905	9,361	5,100	3,776.25	544
Totals	3	3,355	6,240	10,225	5,714	4,178.25	1,058
From United States to Gatun Lake:							
United States	1	5,972	7,008	11,081	5,970	5,045.76	.....
From Canada to South America:							
British	1	4,101	4,713	7,115	3,943	3,393.36	.....
From United States to Central America:							
Norwegian	1	1,608	1,762	2,471	1,484	1,268.64	.....
From West Indies to Mexico:							
French	1	4,879	4,959	6,674	4,230	5,950.80	4,325
From West Indies to Central America:							
United States	1	719	730	818	708	876.00	17
From Europe to Mexico:							
German	1	2,277	3,117	3,810	2,355	2,846.25	1,434
Totals, August, 1923..	261	1,019,781	1,270,764	1,619,801	1,018,327	1,083,892.40	738,600
Totals, August, 1922..	141	480,579	611,862	765,642	478,744	576,958.32	556,761
Totals, August, 1921..	120	394,295	487,219	607,852	387,071	465,017.24	317,970

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
United States intercoastal:							
United States	103	471,964	574,476	738,710	469,789	$587,537.90	938,697
From South America to United States:							
British	5	17,033	21,167	29,099	17,817	21,291.25	18,853
Danish	2	5,841	7,886	9,420	5,890	7,301.25	14,744
Japanese	2	8,733	9,436	11,746	8,508	10,916.25	16,856
Norwegian	2	4,576	6,498	7,465	4,591	5,720.00	12,603
United States	8	24,147	29,773	42,843	25,091	30,099.95	62,983
Totals	19	60,330	74,760	100,573	61,897	75,328.70	126,039
From South America to Europe:							
British	9	37,362	45,850	58,647	36,588	46,479.90	54,768
Dutch	1	2,746	4,393	4,368	2,726	3,432.50	6,190
German	3	8,191	13,729	14,247	8,228	10,238.75	20,022
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	4,962
Finland	1	1,727	1,751	1,905	1,610	2,101.20	3,100
Totals	16	54,939	71,877	88,183	55,162	68,393.60	89,042
From South America to Cristobal:							
British	3	675	1,028	1,263	815	843.75	542
Chilean	2	3,608	6,250	7,612	4,560	4,510.00	106
Peruvian	2	2,710	5,337	9,147	4,763	3,387.50	3,683
Totals	7	6,993	12,615	18,022	10,138	8,741.25	4,331
From Canada to Europe:							
British	2	9,440	13,092	15,277	9,517	11,800.00	18,465
From United States to Europe:							
British	1	3,736	4,459	6,138	3,838	4,670.00	8,572
Dutch	1	5,776	7,551	9,399	5,814	7,220.00	9,851
French	1	3,289	4,934	5,379	3,199	4,111.25	7,573
German	2	5,589	8,567	9,282	5,604	6,986.25	12,630
Norwegian	1	2,929	3,706	4,821	2,969	3,661.25	5,800
United States	2	7,913	9,861	12,636	7,862	9,891.25	17,138
Totals	8	29,232	39,078	47,655	29,286	36,540.00	61,564
From Hawaii to United States:							
United States	1	3,688	4,709	6,034	4,381	4,610.00	7,500
From the Philippine Islands to United States:							
United States	1	4,757	5,216	6,319	4,674	5,946.25	8,066
From United States to Mexico:							
British	5	32,202	36,656	51,406	32,243	40,252.50	65,377
Dutch	1	4,641	5,521	7,283	4,580	5,801.25	9,000
Norwegian	1	4,315	4,916	7,102	4,434	5,393.75	9,867
Totals	7	41,158	47,093	65,791	41,257	51,447.50	84,244
From South America to Central America:							
Colombian	1	334	335	864	614	402.00	535
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	1,569
United States	1	602	623	684	610	451.50	.....
Totals	3	2,451	3,917	6,165	3,651	2,747.25	2,104
From Australasia to Europe:							
British	3	18,042	24,223	28,967	18,394	22,552.50	17,414
From Far East to United States:							
British	1	4,909	5,531	7,920	4,908	6,136.25	7,379
Japanese	3	13,063	15,346	18,985	13,090	16,181.45	13,957
United States	2	9,843	10,758	11,901	7,957	12,303.75	13,259
Totals	6	27,815	31,635	38,806	25,955	34,621.45	34,595
From Central America to Cristobal:							
British	2	1,286	1,441	2,298	1,304	1,607.50	403
From Australasia to United States:							
United States	2	8,944	9,003	11,710	8,911	10,803.60	453
From South America to Mexico:							
British	1	4,330	4,831	7,337	4,286	3,478.32	.....
From Australia to Canada:							
British	1	3,278	4,121	5,752	3,551	4,097.50	1,040

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Canada to United States:							
United States	3	10,793	14,881	17,577	10,776	$13,491.25	17,255
From United States to South America:							
United States	1	6,228	8,495	10,534	6,195	7,785.00	5,256
From Mexico to Balboa, C. Z.:							
British	1	4,248	4,723	7,335	4,259	3,400.56	.....
From Balboa, C. Z. to Cristobal, C. Z.:							
Panaman	1	24	27	40	19	19.44	.....
From South America to Canada:							
British	1	4,101	4,713	7,115	3,943	5,126.25	9,542
From United States to Cristobal, C. Z.:							
United States	2	3,516	4,369	5,812	3,516	4,395.00	721
From United States to West Indies:							
United States	2	1,835	2,531	3,290	2,168	2,293.75	3,419
Totals, August, 1923..	193	779,392	961,826	1,239,302	783,029	966,764.57	1,430,150
Totals, August, 1922..	116	377,346	472,271	593,275	374,468	478,378.43	609,189
Totals, August, 1921..	116	398,147	478,057	611,965	393,874	490,363.54	521,303

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs since August 25:

Cableship *Guardian*, repair steering gear, bilge and feed pumps, capstans, refrigerating machinery; retube air-heating uptakes; miscellaneous minor repairs to boilers and engine-room equipment; miscellaneous minor repairs to deck equipment, open up machinery for survey examination; reassemble all dismantled parts; steamships *Cerro Azul*, repair copper feed pipe; *Eastern Planet*, repair auxiliary steam line; *Lio*, repair fuel-oil pump; clean fuel-oil heaters and pipe to condensate pump; *Aguimex*, remetal, fit, and assemble one pair of crank-pin brasses; *Rotorura*, minor repairs to sanitary system; *Alameda*, minor repairs to main engine, blower engine, ballast pump, circulating pump, and auxiliary steam system; *Strombus*, minor repairs to condenser valve and boiler mountings; *Anomia*, calk, renew bad-order rivets in shell near water line.

PREVIOUSLY REPORTED.

Submarines *O–7*, *O–8*, and *O–9*, dock and undock, paint and routine docking repairs; steamship *Colon*, reboilering and general overhauling; launch *L–55*, general repairs and reconditioning; Colombian coast guard cutter *No. 3*, general repairs and reconditioning.

The following vessels were at the Cristobal shops for repairs during the two weeks ended September 10:

U. S. submarine *O–4*, dock and undock; examine and make necessary minor repairs to outside steering and diving gear and torpedo tube-cap and fittings; remove play from vertical steering rudder; renew pins in hand-steering shafting; remove, calibrate and reinstall air gauges, hydrostatic gauges, and fuel gauges; remake joints in fuel-transfer line; test ballast tanks, trim tanks, fuel tanks, and compartments, and repair leaks found; test torpedo impulse tanks to 1½ times working pressure; clean and paint all ballast, trim, and fuel tanks; renew zincs in all zinc boxes; regrind C. & R. sea valves, and renew zincs; inspect shell and make minor structural repairs; remove bow rudder, rebush, and straighten cams; realign sliding arears and align shafting; renew wooden deck and about 200 linear feet angle-iron support for same; stage, scrape, and wire brush bottom; scale bad spots and red-lead same and paint bottom, two coats; strike and cut in water line; paint above water line and boot topping; renew bitumastic cement under superstructure and in periscope shears; manufacture and install ice chest; alter hull ventillation in torpedo room; install signal ejector; install valves and piping for torpedo-tube quick closing vents; check propeller pitch and make minor repairs to propellers, stern tubes, and outboard bearings;

realign tail shaft brakes; regrind muffler valves; remove S. C. tube and reinstall in watertight condition; install foundation for radio-motor generator; furnish ship with compressed air, fresh water, current, temporary lights and miscellaneous crane service; steamships *Manavi*, repair main engine; one steam gauge, and pipe; renew one length of injector pipe and 6 boiler tubes; overhaul connections on hot-water vase in galley; manufacture new sheaves for gin blocks and two pieces glass; splice new main forestay; *Ulysses*, remetal one set of crank-pin brasses for port engine and machine same; repair turbine generator, after bulkhead between main and poop deck, and strongback for lifting cylinder covers; renew staybolt in port boiler, sheet iron casing around telegraph wires on middle bridge, and two hatch-dogs in No. 1 hatch; complete scaling and painting No. 4 cargo hold, etc.; *Hoxbar*, remove broken ring from H. P. cylinder and install new ring; renew two rings in L. P. balance cylinder and plane off valve-stem guide; *Panama*, repair steering gear, ash-guard fronts of main boilers, bilge suction from No. 3 hold, valve connecting fire and sanitary lines, lathe, hatch batten cleats, pad eye and turnbuckle on forestay, between decks stanchions, hatch strongback, rail on starboard side, dining-room window pockets, 3 water carriers, water service pipe in social hall, water end of bilge pump, drain from galley bunkers, deck plating in upper coal bunkers, and fire tools and chisels; retube port condenser; finish scaling and painting coal bunker; scale and paint holds where directed; replace hand rail on upper annex; install patch on tank top No. 4 tank; electric-weld and machine-valve stem-post L. P. engine; grind and face 7 chipping hammers; service of diver to plug up overboard discharge valve; manufacture two sectional rods for boiler-tube brushes and two main-engine foundation bolts, etc.; *Salvador*, anneal and repair one steering chain and furnish one new length of chain; renew connecting bracket for port steering chain; renew drain pipe for feed heater; stove and remake 12 pillows; renew compressor rod for refrigerator and machine spare rod as directed; manufacture two valve spindles; repair engine-room skylight, etc.; *Huallaga*, repair sanitary line and rod on fore peak sluice valve; renew drain on main deck and manufacture one deck casting; motor ship *Laura C. Hall*, renew, calk and patch up deck as directed by Master; install lead around foundation of afterhouse and ventilator studding-bands above deck; repair foundation of forward house, hatch covers, and after bulkhead in cargo hold; make minor repairs in engine room; repair circulating pump and deck-hand pump, etc.

Minor repairs.—Steamships *Ceres*, *Ebro*, *Stuyvesant*, *Alameda*, *Manitowoc*, *Dakarian*, *Byron Benson*, *Clan Matheson*, *H. M. Storey*, *Ucayali*, and *Balboa*; U. S. M. P. *Graham*, U. S. Jr., M. P. *Nones;* launches *Gargoyle* and *Patrol.*

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 8, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
San Juan	Pacific Mail Steamship Co	September 2	September 2	52	.....
Ivernia	Swedish Lloyd	September 2	September 2	302	9
Santa Elisa	Grace Line	September 3	September 3	93	3
Borgland	Peter Olsen	September 5	September 6	402	22
Capsa	Anglo-Saxon Petroleum Co	September 5	September 7	5,574	.....
Manavi	Pacific Steam Navigation Co	September 6	September 6	.....	26
George Washington	Peter Olsen	September 6	September 6	.....	146
Laura C. Hall	Pacific Metals Corporation	September 6	September 7	4	.....
Canada	Johnson Line	September 6	September 7	.....	386
Ansaldo San Giorgio III	Soc. Nazionale di Navigazione	September 8	September 9	12	.....
Palena	Pacific Steam Navigation Co	September 8	September 9	66	.....
Santa Maria	Union Oil Co	September 8	September 10	11,500	.....

Notice to Mariners.—Aids to Navigation.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., September 11, 1923.

The following message was received by the Hydrographic Office from the steamship *Zacapa:*

"On Grape Cay, Port Limon, Costa Rica, new attended light in operation from 10th September, showing bright flash every 12 seconds. Visible about 17 miles, acetylene,—A. G. A. Patent—Baxter, Master."

M. L. WALKER,
Acting Governor.

Seaplane Trial Flight to Venezuela.

Two F5L seaplanes, attached to the Naval Air Station at Coco Solo, under the command of Lieut.-Commander Ralph F. Wood, U. S. N., returned on Friday, September 7, from a flight to La Guaira, Venezuela, about 1,000 miles from Colon. The round trip of approximately 2,000 miles was made in about 37 hours flying time, and was flown for the purpose of mapping a part of the air route from the United States to the Canal Zone by way of Cuba, Haiti and Santo Domingo.

Stops were made at Cartagena, Santa Marta, and Bahia Honda in Colombia and at Oruba, Curaçao in the Dutch West Indies, and at La Guaira, Venezuela.

On the return trip one of the planes, on account of motor trouble, was forced to land in the Caribbean Sea about 200 miles from Colon. After 34 hours search, the plane and crew, the latter none the worse for their experience, were picked up by the U. S. submarine *O-3* and returned to Coco Solo.

Notice to Mariners.—Aids to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 10, 1923.

The following information appeared in the August 22, 1923, *Hydrographic Bulletin:*

"PANAMA"

"*Hydrographic information*, Almirante Bay.—The commanding officer of the U. S. S. *Fulton* reports the following information concerning Almirante Bay:

The beacon located on the reef ⅛ mile 314° from Coco Point has been partially destroyed.

Juan Point Beacon Light is located about 100 yards southward of its charted position. This beacon should be given a berth of at least 500 yards.

The coast reef about ¾ mile southward of Juan Point Beacon extends farther westward and farther northward than charted.

A beacon has been erected on Pondsock Reef about ¾ mile 78° from the southern point of the southermost island southward of Pondsock Point. This beacon marks a boat passage where boats drawing up to 4 feet can cross the reef.

Shepherd Island Light Beacon is located about 680 yards eastward of the northwest point of the island.

The coral reef marking off John Crow Point extends about 400 yards farther eastward than shown on the charts. Although the water on this reef is very shoal, it never breaks."

M. L. WALKER,
Acting Governor.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Prices of Scrap.

THE PANAMA CANAL, SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 30, 1923.

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective September 15, 1923, the following prices will be allowed by the Supply Department for scrap turned in by the various departments and divisions of The Panama Canal. The selling prices to departments and divisions, employees, and to individuals and companies are also indicated:

Kind of scrap.	Credit to be allowed divisions.	Issue and sale price.	
		To departments of The Panama Canal.	To employees and individuals and companies.
	Short ton.	*Short ton.*	*Short ton.*
Cast iron, including car wheels	$5.00	$6.00	$25.00
Miscellaneous wrought iron and steel	3.00	4.00	20.00
Rail, scrap, grade No. 4	3.00	4.00	20.00
Rail, relaying, grade No. 2	17.00	18.00	35.00
Rail, relaying, grade No. 3	9.00	10.00	30.00
	Cwt.	*Cwt.*	*Cwt.*
Aluminum	8.00	9.00	25.00
Babbitt	2.00	3.00	10.00
Bags and burlap	.50	1.00	3.00
Brass, mixed	4.00	5.00	10.00
Brass borings and turnings	4.00	5.00	10.00
Bronze screening	6.00	7.00	15.00
Canvas	.50	1.00	.....
Copper, mixed	6.00	7.00	15.00
Cork	1.00	2.00	6.00
Hose	.50	1.00	6.00
Lead	1.00	2.00	8.00
Leather	.50	1.00	3.00
Pewter	10.00	11.00	50.00
Rags	.50	1.00	5.00
Rope	.50	1.00	5.00
Rubber	.50	1.00	6.00
Tool steel	5.00	6.00	25.00
Zinc	1.00	2.00	5.00

R. K. MORRIS,
Chief Quartermaster.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 6, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in casks	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity.. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20

   Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 76.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 2	Atenas	United Fruit Co	New Orleans via Habana.
September 2	Pastores	United Fruit Co	Port Limon.
September 2	Antiochia	Hamburg-American Line	Puerto Barrios.
September 3	Panama	Panama Railroad Steamship Line	New York via Haiti.
September 4	San Benito	United Fruit Co	Boston via Habana.
September 4	Crenatula [1]	Anglo-Saxon Petroleum Co	Curacao.
September 4	Ulua	United Fruit Co	New York via Habana.
September 4	Heredia	United Fruit Co	New Orleans via Habana.
September 5	Carrillo	United Fruit Co	New York via Kingston.
September 5	Camden	United Fruit Co	Tampico.
September 6	Sixaola	United Fruit Co	Colombian ports.
September 6	Atenas	United Fruit Co	Bocas del Toro.
September 7	Curlew	U. S. Navy	High seas.

[1] Tanker.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 2	Pastores	United Fruit Co	New York via Habana.
September 3	Antiochia	Hamburg-American Line	Cartagena.
September 3	Atenas	United Fruit Co	Bocas del Toro.
September 5	San Benito	United Fruit Co	Boston via Port Limon.
September 5	Heredia	United Fruit Co	New York via Bocas del Toro and Jamaica.
September 5	Ulua	United Fruit Co	Port Limon.
September 6	Carrillo	United Fruit Co	Colombian ports.
September 6	Sixaola	United Fruit Co	New York via Kingston.
September 6	Atenas	United Fruit Co	New Orleans.
September 6	Crenatula [1]	Anglo-Saxon Petroleum Co	Curacao.
September 7	Camden	United Fruit Co	Tampico.
September 8	Ulysses	Panama Railroad Steamship Line	Norfolk.

PORT OF BALBOA.

Date.	Vessel.	Line.	For—
Sept. 2	Anomia [1]	Anglo-Saxon Petroleum Co	San Pedro.
Sept. 2	Strombus [1]	Anglo-Saxon Petroleum Co	San Pedro.
Sept. 7	Capsa [1]	Anglo-Saxon Petroleum Co	San Pedro.

Sept. 5	Capsa [1]	Anglo-Saxon Petroleum Co	San Pedro.

[1] Tanker.

*Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., September 19, 1923. No. 6.

Canal Traffic for First Half of September.

During the first 15 days of September, 1923, 212 commercial vessels transited the Canal paying tolls to the amount of $961,136.58. This is an average of 14.13 ships per day and an average daily collection of tolls of $64,075.77.

In addition to the 212 commercial transits noted above, 3 small launches, under 20 tons measurement, passed through the Canal and tolls to the amount of $10.70 were paid on them.

During the calendar year to September 15, the average daily number of transits and tolls have been as shown in the following tabulation:

	Daily average.	
	No. of transits.	Tolls.
January	11.35	$48,557.60
February	11.64	50,855.51
March	13.20	58,958.66
April	13.47	62,631.27
May	13.52	63,619.87
June	13.90	63,268.13
July	15.29	68,529.36
August	14.65	66,150.22
September (first 15 days only)	14.13	64,075.77

Tariff No. 7.

The Panama Canal and Panama Railroad Company have issued Tariff No. 7, giving the schedule of rates for supplies and services furnished to shipping and allied interests at the Panama Canal. The new tariff supersedes Tariff No. 6, and all supplements thereto.

Tariff No. 7 contains 52 pages, and covers 43 items in which are included practically all charges for services at the Canal which may be furnished to shipping or to related interests.

The index of the items covered is as follows:

Agency fees; air, compressed; ashes, handling; baggage allowance; baggage transfer; bakery products; barges; berth, shifting; bills of health; bills, payment of; buoys, mooring to; cablegrams advising deposits; cargo, stevedoring and transferring; cars, railroad motor; cattle inspection; chandlery, ship; coal; cold storage; collections, agency fee; cordage; cranage; craneboats; cranes; current, electric; customs fees; deck hands; demurrage, Panama Railroad; Diesel oil; dispensaries; divers; dry docks; express Panama Railroad tariff; extinguishers, fire, recharging; fees, agency; floating cranes; freight, Panama Railroad classification and tariff; fruits; garbage; general; groceries; guards, quarantine; guards, rat; handling lines; holiday and Sunday passenger rates, special; holiday and Sunday work; hospital treatment; hotels; launches; laundry; lighters; lubricants; measurement of vessel; meats; medical supplies; medical treatment; motor cars, railroad; oil; oil, Diesel; oil, fuel; overtime; Panama Railroad passenger tariff; pangas; physicians; piers, storage on; pilotage; provision and supplies; pumping oil; quarantine; salvage work; ship stores; special Sunday and holiday passenger rates; special trains and cars; storage, Panama Railroad; supplies; supply boats; switching; switching, Panama Railroad tariff; telephones; Tivoli Hotel; tolls; tugs and supply boats; vegetables; vessels, repairs to; Washington Hotel; water; whaleboats; wharfage; wrecking cranes.

Copies of the tariff have been distributed to steamship lines and agencies. Additional copies may be secured on request to The Panama Canal, Washington, D. C., or Balboa Heights, Canal Zone.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, August, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.						Australasia.						Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Mexico.	West coast of Canada.	West coast of North America.[2]	West coast of Central America.	Balboa, C. Z.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.	Hawaii.			
North America:																										
United States—																										
North Atlantic ports.	14,550	....	....	783	16,936	32,269	275,534	2,000	346	.....	542	73	278,495	16,447	25,668	748	31,962	74,825	5,552	37,519	.....	43,071	5,003	433,663	58.7
Gulf ports	9,518	....	....	.....	.....	9,518	37,840	.....	.....	.....	.....	.....	37,840	5,994	43,216	192	4,748	54,150	.....	1,462	.....	1,462	.....	102,970	13.9
Totals, U. S.	24,068	....	....	783	16,936	41,787	313,374	2,000	346	.....	542	73	316,335	22,441	68,884	940	36,710	128,975	5,552	38,981	.....	44,533	5,003	536,633	72.6
East coast of Mexico	26,385	....	....	.....	.....	26,385	.....	.....	.....	.....	.....	457	457	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26,842	3.6
Cristobal, C. Z.[2]	863	40	....	.....	1,818	2,721	2,067	.....	.....	.....	4,862	....	6,929	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,650	1.3
West Indies	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	17	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	....
East coast of Canada	.....	....	....	.....	.....	.....	.....	.....	4,350	.....	.....	....	4,350	.....	.....	.....	2,031	2,031	.....	1,142	2,063	3,205	.....	9,586	1.3
Totals, North America	51,316	40	....	783	18,754	70,893	315,441	2,000	4,696	.....	5,404	547	328,088	22,441	68,884	940	38,741	131,006	5,552	40,123	2,063	47,738	5,003	582,728	78.8
Europe:																										
Belgium	585	....	....	.....	.....	585	10,638	.....	.....	.....	.....	....	19,638	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,223	1.6
British Isles	7,986	....	....	260	5,720	13,966	12,683	.....	10,103	.....	.....	....	22,786	.....	.....	.....	.....	.....	17,809	310	4,016	22,135	.....	58,887	8.0
France	21	....	....	.....	86	107	3,975	350	.....	.....	.....	....	4,325	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,432	0.6
Germany	756	....	....	668	2,265	3,689	2,693	.....	268	.....	.....	....	2,961	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,650	0.9
Holland	402	....	....	44	.....	446	2,378	.....	.....	.....	.....	....	2,378	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,824	0.4
Norway and Sweden	.....	....	....	.....	.....	.....	8,400	.....	.....	.....	.....	....	8,400	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000	9,409	1.3
Spain	.....	....	....	.....	76	76	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76	....
Europe[2]	14,186	....	....	.....	10,522	24,708	22,869	.....	478	2,448	1,434	191	26,116	.....	.....	.....	.....	.....	.....	.....	2,487	2,487	.....	53,311	7.2
Totals, Europe	23,936	....	....	972	18,669	43,577	63,627	350	10,849	2,448	1,434	191	78,899	.....	.....	.....	.....	.....	17,809	310	6,503	24,622	1,000	148,098	2.0
East coast, South America	785	....	....	.....	1,108	1,893	5,819	.....	.....	.....	.....	62	5,881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,774	1.2
Grand totals	76,037	40	....	1,755	38,531	116,363	384,887	2,350	15,545	2,448	6,838	809	412,868	22,441	68,884	940	38,741	131,006	23,361	40,433	8,566	72,360	6,003	738,600	100.0
Per cent of total cargo:																										
August, 1923	10.2	....	....	0.2	5.2	15.6	52.2	0.3	2.2	0.3	0.9	0.1	56.0	3.0	9.3	0.1	5.2	17.6	3.2	5.5	1.2	9.9	0.9	.....	100.0	
August, 1922	13.9	0.7	0.2	3.3	3.8	21.9	38.7	.....	0.2	0.3	0.5	....	39.7	8.3	15.8	0.3	0.7	25.1	6.6	1.3	4.7	12.6	0.7	.....	100.0	
August, 1921	5.7	0.5	0.2	0.7	10.6	17.7	18.8	.....	2.4	8.8	0.4	....	30.4	13.6	6.2	1.3	15.6	36.7	2.6	6.3	6.0	14.9	0.3	.....	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, August, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.									East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[1]	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																	
South America:																					
Chile	93,727	15,010	8,400	117,137	.....	67	.....	218	117,422	11,228	....	....	14,974	801	....	10,662	21,595	59,260	.....	176,682	12.3
Colombia	1,775	.....	.....	1,775	.....	.....	.....	1,072	2,847	.....	....	....	.....	.....	....	.....	.....	.....	3	2,850	0.2
Ecuador	869	.....	.....	869	.....	.....	.....	.....	869	.....	....	....	.....	.....	....	.....	.....	.....	.....	869	.....
Peru	.....	.....	.....	.....	9,542	.....	.....	1,846	11,388	11,211	....	....	.....	8,500	....	.....	17	19,728	.....	31,116	2.2
West coast of South America [1]	677	.....	.....	677	.....	.....	.....	3,404	4,081	7,159	....	....	.....	.....	....	.....	.....	7,159	.....	11,240	0.8
Totals, South America	97,048	15,010	8,400	120,458	9,542	67	.....	6,540	136,607	29,598	....	....	14,974	9,301	....	10,662	21,612	86,147	3	222,757	15.5
North America:																					
West coast of United States	832,730	1,975	121,114	955,819	.....	3,419	85,904	99	1,045,241	54,214	....	....	.....	250	....	.....	21,811	76,275	5,256	1,126,772	78.8
West coast of Canada	6,581	.....	.....	6,581	.....	.....	.....	.....	6,581	3,764	....	....	.....	.....	....	.....	.....	3,764	.....	10,345	0.7
West coast of Central America	135	.....	.....	135	.....	.....	.....	869	1,004	.....	....	....	.....	.....	....	.....	.....	.....	.....	1,004	0.1
West coast of North America [1]	.....	.....	.....	.....	.....	.....	.....	194	194	.....	....	....	.....	.....	....	.....	.....	.....	.....	194	.....
Hawaii	7,500	.....	.....	7,500	.....	.....	.....	.....	7,500	.....	....	....	.....	.....	....	.....	.....	.....	.....	7,500	0.5
Totals, North America	846,946	1,975	121,114	970,035	.....	3,419	85,904	1,162	1,060,520	57,978	....	....	.....	250	....	.....	21,811	80,039	5,256	1,145,815	80.1
Asia:																					
China	17,084	.....	.....	17,084	.....	691	.....	.....	17,775	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
Japan	1,154	.....	.....	1,154	.....	.....	.....	.....	1,154	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
Philippines	17,182	.....	.....	17,182	.....	.....	.....	.....	17,182	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
Far East [1]	6,560	.....	.....	6,560	.....	.....	.....	.....	6,560	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
Totals, Asia	41,980	.....	.....	41,980	.....	691	.....	.....	42,671	.....	....	....	.....	.....	....	.....	.....	.....	.....	42,671	3.0
Australasia:																					
Australia	1,340	.....	.....	1,340	.....	.....	.....	.....	1,34[illegible]	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,414	....	....	.....	.....	....	.....	.....	17,414	.....	.....	.....
Australasia [1]	153	.....	.....	153	.....	.....	.....	.....	153	.....	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....
Totals, Australasia	1,493	.....	.....	1,493	.....	.....	.....	.....	1,493	17,414	....	....	.....	.....	....	.....	.....	17,414	.....	18,907	1.4
Grand totals	987,467	16,985	129,514	1,133,966	9,542	4,177	85,904	7,702	1,241,291	104,990	....	....	14,974	9,551	....	10,662	43,423	183,600	5,259	1,430,150	100.0
Per cent of total cargo:																					
August, 1923	69.0	1.2	9.0	79.2	0.7	0.2	6.0	0.6	86.7	7.4	....	....	1.0	0.7	....	0.8	3.1	13.0	0.3	.....	100.0
August, 1922	51.2	3.2	1.9	56.3	1.9	1.4	.....	1.2	60.8	19.2	1.8	....	2.3	2.8	1.8	1.0	9.9	38.8	0.4	.....	100.0
August, 1921	33.6	2.7	3.3	39.6	0.3	0.8	.....	1.6	43.8	39.4	0.9	0.6	0.1	2.4	1.5	.....	11.3	56.1	0.1	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 15, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Rosa	8	16.03	9	6.10	9	13.45	9	19.50	American	Grace Line	404.6	53.0	21.0	New York	San Francisco	Steel, general	4,000	6,754	4,780
Henry S. Grove	8	23.15	9	7.20	9	14.35	9	18.20	American	Nautilus Steamship Co	401.0	53.0	27.0	New York	San Francisco	General	7,442	6,755	4,688
T. J. Williams [1]	9	0.35	9	7.40	9	15.18	9	16.35	American	Standard Oil Co	481.0	60.8	19.0	Baton Rouge	San Pedro	Ballast		8,585	6,087
Stanley Dollar	9	3.20	9	10.33	9	17.38	9	23.20	American	Dollar Line	401.0	54.0	25.6	Norfolk	Los Angeles	General	7,469	6,971	5,078
Bachi	9	10.55	9	11.10	9	17.42	9	21.20	Spanish	Hijos de Astigarraga	331.2	46.0	13.0	Bilbao	Guaymas	Ballast		3,470	2,121
William Rockefeller [1]	9	11.26	9	11.45	9	18.34	9	19.50	American	Standard Oil Co	554.9	75.3	21.0	New York	San Pedro	Ballast		14,785	10,313
Hampton Roads [1]	9	6.58	9	11.45	9	20.50	9	21.49	American	McAllister Bros. (S. B.)	431.0	59.2	20.1	Fall River	San Pedro	Ballast		8,093	5,541
Hawaiian	9	12.05	9	12.25	9	19.53	9	21.03	American	American-Hawaiian Line	406.0	51.0	25.0	Philadelphia	Los Angeles	General	6,000	6,039	4,180
F. R. Kellogg [1]	8	7.00	10	6.22	10	12.58	10	14.00	American	Pan-American Petroleum Co	425.8	57.0	28.0	Tampico	San Pedro	Ballast		7,178	4,963
Harold Walker [1]	9	15.32	10	7.00	10	14.10	10	15.12	American	Pan-American Petroleum Co	446.4	58.0	22.0	New York	San Pedro	Ballast		6,973	4,658
Edward L. Doheny, Jr. [1]	9	16.05	10	7.33	10	14.53	10	15.58	American	Pan-American Petroleum Co	467.6	62.7	22.6	New York	San Pedro	Ballast		9,655	7,166
Robin Goodfellow	10	4.20	10	8.35	10	16.40	10	17.40	American	Robin Line Steamship Co	424.8	55.2	27.10	Baltimore	Honolulu	General, steel	8,565	7,473	5,536
Steelore [1]	10	6.25	10	9.05	10	18.44	12	15.43	American	Ore Steamship Co	550.3	72.2	22.9	Baltimore	Cruz Grande	Ballast		15,551	4,297
Izgled	9	18.18	10	9.47	10	19.40	10	21.25	Jugo-Slav	Navigazione Libera	378.0	53.3	21.7	Spalatts	Autofagasta	Cement	6,300	5,236	3,987
Candidate	9	8.18	10	12.55	10	20.08	10	21.40	British	Harrison Line	400.0	52.0	17.9	Liverpool	San Francisco	General	1,760	5,677	4,126
D. G. Schofield [1]	10	22.38	11	6.43	11	13.22	11	14.30	American	Standard Oil Co	439.5	58.0	17.9	New York	San Pedro	Ballast		8,698	6,040
Laura C. Hall [2]	7	17.05	11	6.30	11	13.48	12	10.00	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	10	132	72
Matinicock [1]	11	9.30	11	9.50	11	17.30	14	6.15	American	Standard Oil Co	459.1	60.0	26.0	Charleston	San Pedro	Fuel oil	10,650	8,171	6,014
Ruby [3]	8		11		11	11.42			American	E. J. Hooper				Cristobal	Gatun Lake	Ballast		1	1
Lobos [4]	11	6.07	12	6.06	12	13.33	12	16.06	British	Pacific Steam Navigation Co	404.7	54.2	18.7	Rotterdam	Valparaiso	General	5,632	7,151	4,756
London Shipper	11	19.50	12	7.04	12	14.41	13	3.40	British	Furness Withy & Co	450.4	58.0	19.0	Middlesboro	Vancouver	Ballast		8,412	5,725
Biyo Maru	12	1.10	12	7.15	12	15.00	13	7.57	Japanese	Toyo Kisen Kaisha	400.0	53.0	18.0	New York	Yokohama	(5)	2,495	5,969	4,414
Chuky [1]	12	4.40	12	7.54	12	16.07	12	18.20	British	Sheridan Steamship Co	440.8	56.0	26.9	Tampico	Tocopilla	Crude oil	9,657	7,691	4,723
Durango [1]	12	5.15	12	8.55	12	17.06	13	0.08	American	Malston Line	435.0	56.0	21.8	Baltimore	San Pedro	Ballast		7,642	5,274
F. J. Luckenbach	12	7.30	12	9.47	12	17.50	12	18.59	American	Luckenbach Line	446.0	56.0	27.0	Galveston	Seattle	General	7,194	8,508	6,179
Santa Ana	12	12.25	12	12.55	12	20.30	13	13.02	American	Grace Line	360.2	51.6	21.8	New York	Talcahuano	General	2,373	5,776	4,081
Hadnot [1]	12	10.27	12	12.15	12	19.46	13	5.46	American	Steamers Freeport Co	416.9	56.2	17.6	Charleston	San Pedro	Ballast		6,706	4,639
Palena	9	20.20	13	6.08	13	13.54	13	16.28	Chilean	Chilean Line	355.0	41.2	23.6	Cristobal	Valparaiso	General	265	3,666	2,577
Alvarado	12	14.32	13	6.15	13	15.38	13	20.09	British	Pacific Steam Navigation Co	303.0	43.0	15.8	New York	Guayaquil	General	644	2,844	1,748
Oreoma	12	10.05	13	6.33	13	14.26	13	15.55	British	Pacific Steam Navigation Co	528.0	62.0	25.10	Liverpool	Valparaiso	General	4,470	12,459	8,323
Honduras	12	11.02	13	7.35	13	15.45	13	16.57	French	French Line	387.1	51.4	18.6	Havre	Valparaiso	General	999	6,020	4,363
The Lambs	12	16.40	13	7.46	13	17.54	16	11.34	American	Kerr Steamship Co. (S. B.)	395.0	55.0	26.10	Norfolk	Cavite	Navy coal	8,305	7,285	5,256
Halo [1]	13	6.03	13	8.12	13	18.24	13	19.37	American	Cities Service Corporation	435.0	56.0	18.0	Boston	San Pedro	Ballast		7,484	5,116

[1] Tanker. [2] Motor schooner. [3] Launch. [4] Motor ship. [5] Ammonia, machinery, oil, and general.

Bethore [1]	13	6.17	13	8.35	13	17.45	14	2.00	American	Ore Steamship Co	550.3	72.2	24.0	New York	Cruz Grande	Ballast	15,476	4,354	
Birkenhead [1]	13	7.08	13	9.26	13	20.25	14	3.56	American	Vacuum Oil Co	425.0	57.2	19.0	Philadelphia	San Pedro	Ballast	7,502	4,982	
Cleveland [6]	11	14.00	13	9.30	13	19.41			American	U. S. Navy	308.0	36.0	17.8	Guantanamo	Balboa	Ballast			
Sugillenco	13	6.26	13	9.32	13	19.58	13	21.00	American	Submarine Boat Corporation	324.0	46.2	19.1	Newark	Tacoma	General	2,400	3,984	2,612
Oleander [1]	13	7.35	13	10.47	13	21.20	14	8.50	British	Anglo-Mexican Petroleum Co	430.2	57.1	17.7	Buenos Aires	San Pedro	Ballast		7,426	5,095
Astral [1]	13	11.40	13	11.55	13	22.15	13	23.35	American	Standard Oil Co	439.5	58.0	29.0	Beaumont	Woosung	Kerosene	9,827	8,913	6,233
Bennekom	13	4.30	14	6.30	14	17.12	15	2.55	Dutch	Royal Netherlands W. I. Mail	450.0	58.0	21.8	Hamburg	Valparaiso	General	5,250	7,742	5,628
Panaman	14	6.08	14	7.30	14	17.44	14	22.54	American	American-Hawaiian Line	407.7	53.7	18.6	Boston	Portland	General	3,321	7,098	5,029
Yamagata Maru	14	7.30	14	8.20	14	18.43	14	19.58	Japanese	Nippon Yusen Kaisha	345.0	50.0	18.0	New York	Kobe	(7)	1,994	4,338	2,915
Orinoco	14	9.40	14	10.00	14	19.25	14	23.57	American	Oriental Navigation Co	376.4	52.3	24.10	Norfolk	San Diego	Navy coal	6,900	5,455	3,902
Indianic	14	9.55	14	10.52	14	19.54	14	21.45	Swedish	Transatlantic Steamship Co	380.4	52.0	19.0	New York	Adelaide	General	3,550	5,450	3,900
San Juan	2	21.05	14	12.45	14	19.58	15	5.20	American	Pacific Mail Steamship Co	283.0	37.0	15.10	Cristobal	San Francisco	General	832	2,379	1,593
Hanley	14	16.27	15	6.17	15	13.27	15	17.30	American	Crowell & Thurlow	440.0	56.0	21.0	Galveston	Seattle	General, sulphur	5,944	8,301	5,995
Gymeric [1]	14	17.09	15	7.20	15	14.23	15	15.38	British	Bank Line, Ltd	425.0	54.3	19.3	London	San Francisco	Ballast		6,501	4,459
Salvador	30	17.35	15	7.40	15	14.56	15	17.26	British	Pacific Steam Navigation Co	215.0	35.4	17.6	Cristobal	Champerico	General	1,252	1,270	735
Wm. G. Warden [1]	15	5.47	15	8.05	15	15.37	15	16.52	American	Standard Oil Co	500.0	68.2	17.6	Baton Rouge	Los Angeles	Ballast		10,524	7,600
W. W. Mills [1]	15	6.29	15	8.28	15	16.21	15	17.28	American	Pure Oil Steamship Co	424.4	58.2	16.0	Marcus Hook	San Pedro	Ballast		7,333	5,119
Muncaster Castle	12	21.12	15	9.25	15	17.42	15	18.54	British	James Chambers & Co	412.6	50.0	26.6	New York	Foo Chow	General, case oil	5,951	5,721	4,305
Bidwell [1]	15	1.40	15	9.45	15	16.47	15	17.48	American	Sun Oil Co	431.0	59.2	21.8	Chester	San Pedro	Ballast			
Tainui	14	19.05	15	10.25	15	18.14	15	19.10	British	Shaw, Savill & Albion	477.8	61.1	27.11	London	Wellington	General	3,020	10,631	7,606
Scottish Strath	15	9.15	15	11.15	15	18.58	15	22.54	British	Anglo-Saxon Petroleum Co	410.8	57.4	19.0	Rouen	San Francisco	Ballast		7,527	5,108
Mississippi	14	16.30	15	12.58	15	20.06	15	21.19	French	French Line	410.1	52.5	23.6	Bordeaux	Vancouver	General	3,149	6,942	5,001

[1] Tanker. [6] Cruiser.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[7] Iron, steel, structural material, plates, machinery, tobacco, and general.

Ansaldo San Giorgio III	7	23.09	9	7.09	9	15.50	11	20.25	Italian	Societe Naz. di Navigazione	385.7	51.7	24.6	Valparaiso	Genoa	Nitrates, copper	6,575	5,759	4,013
I. C. White [1]	8	14.30	9	7.58	9	16.32	9	16.32	American	Pan-Amer. Pet. & Transp. Co	430.0	59.0	27.0	San Pedro	New Orleans	Crude oil	10,728	7,925	5,840
Ramsay	8	15.30	9	8.42	9	16.55	9	16.55	British	Bolton Steamship Co	400.0	52.3	25.0	Caleta Colosa	Alexandria	Nitrates	7,650	5,665	3,915
John Worthington [1]	8	17.00	9	8.52	9	18.00	9	18.00	American	Standard Oil Co. of N. J.	464.4	60.2	29.10	San Pedro	New York	Crude oil	11,590	8,491	6,096
Canadian Miller	9	0.15	9	10.10	9	18.25	9	22.45	British	Canadian Government	399.6	52.3	14.8	Australia	Montreal	General	522	5,892	4,186
Wilhelmine [8]	8	8.00	9	10.29	9	21.10	11	5.40	German	H. A. Schmidt	277.0	40.0	24.6	Chincha Island	New York	Guano	3,180	2,338	2,033
Toco [1]	9	10.00	9	10.46	9	18.52	9	21.35	British	Sheridan Steamship Co	439.6	56.0	17.6	Tocopilla	Tampico	Ballast		7,693	4,831
Palena	8	21.10	9	12.00	9	20.20	13	6.08	Chilean	South American Steamship Co	350.0	42.1	21.9	Talcahuano	Cristobal	General	148	3,666	2,577
Almagro	9	15.00	10	7.21	10	14.35	11	1.15	British	Pacific Steam Navigation Co	303.0	43.0	17.9	Guayaquil	New York	General	987	2,878	1,714
Delaware Sun [1]	9	18.40	10	7.48	10	15.40	10	15.40	American	Sun Oil Co	480.5	66.0	27.10	San Pedro	Philadelphia	Crude oil	13,923	9,402	6,585
Wilfred	10	7.45	10	8.52	10	16.55	10	18.45	Norwegian	A/S Det. Selmerske Rederi	339.1	48.2	22.6	Iquique	Newp't News[11]	Nitrates	5,400	4,069	3,107
Sunbeam [1]	10	12.10	10	13.41	10	21.44	11	3.55	American	Sun Oil Co	429.3	59.2	27.3	Los Angeles	Philadelphia	Crude oil	10,500	7,705	5,481
Imlay [1]	10	12.50	10	14.10	10	23.37	11	3.58	American	C. D. Mallory & Co	425.8	57.0	27.6	San Pedro	New York	Petroleum	10,400	7,218	4,959
Missourian [9]	10	18.45	11	7.12	11	13.18	11	13.18	American	American-Hawaiian Line	445.1	59.8	19.6	Seattle	New York	General	4,470	8,557	6,020
Unden	11	7.00	11	8.53	11	17.20	11	19.05	Swedish	Transatlantic Steamship Co	365.9	51.6	24.6	Iquique	Hampton R'ds	Nitrate	7,300	5,336	3,708
Utacarbon [1]	11	7.30	11	9.53	11	18.10	11	22.15	American	Union Oil Co. of California	435.0	56.0	27.6	San Pedro	Baltimore	Crude oil	10,600	7,481	5,195
Chattanooga City	11	11.40	11	12.51	11	20.45	12	4.15	American	Isthmian Steamship Line	424.2	56.2	25.6	Honolulu	Baltimore	(10)	7,122	7,611	5,450

[1] Tanker. [8] Bark. [9] Motor ship. [10] Canned pineapples and wool. [11] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Belgium Maru.	11	16.40	12	7.08	12	14.30	13	14.15	Japanese.	Kisen Kabushiki Kaisha	385.0	51.0	27.0	Portland.	United King.	Wheat in bulk.	7,733	6,219	4,663
Leise Maersk.	11	21.00	12	7.48	12	15.40	12	15.40	Danish	A. P. Moller	302.2	44.2	15.6	Bellingham	Tampico	Box shooks	1,877	3,212	2,166
Clement Smith [1]	11	22.00	12	8.54	12	16.50	12	16.50	American.	Oil Transport Co	431.0	59.2	26.6	Los Angeles.	Fall River	Crude oil	10,649	8,097	5,532
Palm Branch.	11	24.00	12	9.04	12	17.45	12	19.00	British	Nautilus Steamship Co	360.0	45.1	25.6	Talcahuano	Liverpool	General	5,091	4,195	3,088
Katrina Luckenbach	12	4.00	12	9.58	12	17.52	13	1.35	American.	Luckenbach Line	446.0	56.1	27.6	Portland.	Mobile	([16])	7,849	8,508	6,179
Author	12	12.50	12	13.45	12	21.10	12	23.40	British	Harrison Line	420.7	53.0	26.0	San Francisco	London	([17])	8,100	6,382	4,614
Clauses	12	13.10	12	14.39	12	22.10	12	23.10	American.	Planet Steamship Corporation.	409.8	54.2	21.8	San Francisco.	Philadelphia	([18])	5,900	6,581	4,795
Edward Luckenbach	12	8.10	12	15.10	12	23.05	12	23.05	American.	Luckenbach Line	436.6	57.2	25.10	Portland	New York	Lumber, general.	6,577	8,543	6,427
Gold Star	10	6.20	13	6.51	13	15.08	13	18.00	American.	U. S. Navy	317.0	52.0	18.0	San Diego	Hampton R'ds	Navy stores	1,258		
Chaumont	11	16.10	13	8.06	13	16.00	14	0.55	American.	U. S. Navy	448.0	58.2	23.0	Seattle	New York	Navy stores.	184		
Stuart Dollar.	12	10.00	13	8.56	13	16.15	13	19.08	American.	Robert Dollar Line	429.0	55.2	23.3	San Francisco	New York	General	3,518	7,581	5,539
Hallfried.	12	13.30	13	9.10	13	17.15	13	18.02	Norwegian.	Adolf Andersen	376.3	51.6	25.6	Portland, Ore.	Dublin	Wheat in bulk.	6,900	5,651	4,114
Angwilake [1]	12	14.10	13	9.57	13	18.35	13	18.35	American.	Ward Line	468.3	62.7	27.6	San Pedro	Boston	Crude oil	12,390	9,802	6,957
H. M. Flagler [1]	12	21.10	13	10.24	13	18.54	13	18.54	American.	Standard Oil Co. of N. J.	461.6	60.0	28.0	San Pedro	New York	Crude oil	12,000	8,459	6,089
Tiger	13	5.30	13	10.45	13	19.29	13	19.29	American.	Crowell & Thurlow	410.0	56.0	22.6	Seattle	New York	Lumber, general.	6,000	8,243	6,312
Solen	13	6.30	13	11.21	13	20.35	14	4.00	British	Asiatic Petroleum Co	411.0	53.4	24.4	San Francisco	Lands End [15]	Benzine	7,608	6,129	4,281
Muskogee [1]	13	11.05	13	13.15	13	21.07	13	21.07	American.	Standard Oil Co. of N. J.	450 9	57.9	25.9	San Pedro	New York	Crude oil	9,500	7,574	5,193
District of Columbia [1]	12	21.50	13	14.15	13	23.25	13	23.25	American.	Walker & Daly (S. B.)	431.0	59.2	25.0	Los Angeles.	Fall River	Crude oil	9,404	8,097	5,431
Hagood [1]	13	2.10	13	14.32	13	23.55	14	11.40	American.	Cities Service Co	435.6	56.2	27.0	San Pedro	Boston	Crude oil	10,000	7,426	5,094
Cardiganshire.	12	14.25	14	7.21	14	15.10	14	23.37	British	Royal Mail Steam Packet Co.	500.0	62.0	24.0	Vancouver	Liverpool	([19])	5,623	11,420	8,385
Agwisea [1]	12	21.00	14	8.03	14	16.08	14	16.08	American.	New York & Cuba Mail S. S. Co	468.3	62.6	27.6	San Pedro	New York	Crude oil	11,035	9,802	6,961
Fulton	8	12.46	14	8.35	14	17.00			American.	U. S. Navy	227.0	32.0	13.9	Pt. Elmo Bay	Cristobal				
Quail [12]	8	14.49	14	8.35	14	16.55			American.	U. S. Navy	180.0	35.6		Balboa	Cristobal				
No. 285 [13]	8	14.53	14	8.35	14	16.55			American.	U. S. Navy	110.0	16.0		Balboa	Cristobal				
O-1 [14]			14	8.09	14	16.15			American.	U. S. Navy	175.0	16.4		Balboa	Cristobal				
O-5 [14]			14	8.09	14	16.15			American.	U. S. Navy	175.0	16.4		Balboa	Cristobal				
O-6 [14]			14	8.17	14	16.15			American.	U. S. Navy	175.0	16.4		Balboa	Cristobal				
O-10 [14]			14	8.17	14	16.15			American.	U. S. Navy	175.0	16.4		Balboa	Cristobal				
Weigand [1]	13	16.25	14	9.00	14	17.32	14	18.05	German	Roland Line	408.0	54.0	23.6	Corral	Hainburg	Nitrate, general	6,507	6,573	4,629
Acajutla	13	15.50	14	9.01	14	17.30			British	Pacific Steam Navigation Co.	215.7	33.5	12.4	Champerico	Cristobal	Coffee, wood	71	1,273	706
H. H. Rogers [1]	13	16.30	14	9.53	14	19.53	14	19.53	American.	Standard Oil Co. of N. J.	500.0	68.0	29.0	San Pedro	New York	Crude oil	15,000	10,333	7,475
Georgian	13	21.30	14	10.07	14	18.30	14	18.30	American.	American-Hawaiian Line	386.0	52.2	20.0	San Pedro	Philadelphia	Lumber, general	4,400	5,719	4,023
Agwipond [1]	14	2.00	14	11.00	14	21.30	14	21.30	American.	Ward Line	468.0	62.7	27.2	San Pedro	Baltimore	Crude oil	11,857	9,800	6,960
Charles R. McCormack	14	4.00	14	11.12	14	20.52	14	20.52	American.	McCormack Intercoastal S. S.Co	401.4	53.2	25.0	Grays Harbor.	New York	Lumber, general.	6,500	7,082	5,167
Stephan	14	5.50	14	12.01	14	20.35	15	4.00	British	Telegraph Construct. & Maint.	391.8	48.3	16.0	Auckland	London	Ballast		4,778	2,567

[1] Tanker. [12] Tug. *No. 15.* [13] Subchaser. [14] Submarine. [15] For orders. [16] Lumber, shingles, canned goods, beans. [17] Barley and canned goods. [18] Lumber, hay, and canned goods. [19] Grain, timber and canned goods.

Aconcagua	14	8.00	14	12.58	14	22.10	15	3.15	Chilean	Chilean Line	422.8	56.2	26.6	Valparaiso	New York	General	5,384	7,758	4,705
Tuxpanoil [1]	13	22.00	14	13.17	15	0.03	15	0.03	American	McAllister Bros. (S. B.)	431.0	59.2	26.6	San Pedro	New York	Crude oil	9,500	7,862	5,048
Garfield	14	4.06	14	14.20	14	22.55	15	16.05	American	Grace Line, Inc.	299.4	45.0	21.0	Chimboto	New York	General	1,993	3,256	2,010
Bethelridge [1]	14	16.30	15	7.12	15	15.15	15	15.15	American	Walker & Daly (S. B.)	431.0	59.2	25.9	San Pedro	New York	Crude oil	9,300	7,819	5,076
O-2 [20]			15	7.25	15	15.12			American	U. S. Navy	175.0	15.4		Balboa	Cristobal				
Albaro	14	18.00	15	8.01	15	16.34			Italian	La Veloce Line	323.0	49.1	20.6	Valparaiso	Genoa	General	2,134	3,039	2,090
E. T. Bedford [1]	15	1.00	15	8.57	15	17.38	15	17.38	American	Standard Oil Co. of N. J.	499.1	68.1	30.3	San Pedro	New York	Crude oil	16,379	11,009	7,967
Atlantic Sun [1]	15	4.30	15	9.35	15	18.45	15	18.48	American	Sun Oil Co.	429.3	59.2	27.0	San Pedro	New York	Crude oil	10,532	7,567	5,283
George G. Henry [1]	15	6.00	15	10.00	15	19.50	15	19.52	American	Hunasteea Petroleum Co.	435.0	56.0	27.6	San Pedro	New Orleans	Crude oil	9,500	7,221	4,888
Acasta [1]	15	2.30	14	14.17	15	21.36	15	23.38	British	Anglo-Saxon Petroleum Co.	400.0	52.4	25.0	San Pedro	Gibraltar [21]	Crude oil	6,809	6,134	4,604

[1] Tanker. [20] Submarine. [21] For orders. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 9	Ulua	United Fruit Co.	Port Limon.	September 9	Ulua	United Fruit Co.	New York via Habana.
September 9	Zacapa	United Fruit Co.	New Orleans via Habana.	September 9	Zacapa	United Fruit Co.	Bocas del Toro.
September 10	Van Rensselaer	Royal Netherlands W. I. Mail.	Amsterdam via wayports.	September 11	Panama	Panama Railroad Steamship Line.	New York via Haiti.
September 10	Peron	French Line.	Havre via wayports.	September 11	Van Rensselaer	Royal Netherlands W. I. Mail.	Port Limon.
September 11	Parismina	United Fruit Co.	New Orleans via Habana.	September 12	Toloa	United Fruit Co.	Port Limon.
September 11	San Bruno	United Fruit Co.	Boston via Habana.	September 13	Tivives	United Fruit Co.	Colombian ports.
September 11	Toloa	United Fruit Co.	New York via Habana.	September 13	Parismina	United Fruit Co.	New York via wayports.
September 12	Tivives	United Fruit Co.	New York via Kingston.	September 13	San Bruno	United Fruit Co.	Boston via wayports.
September 13	Cristobal	Panama Railroad Steamship Line.	New York via Haiti.	September 13	Zacapa	United Fruit Co.	New Orleans.
September 13	Zacapa	United Fruit Co.	Bocas del Toro.	September 14	Peron	French Line.	Havre via wayports.
September 14	Van Rensselaer	Royal Netherlands W. I. Mail.	Port Limon.	September 15	Van Rensselaer	Royal Netherlands W. I. Mail.	Amsterdam via wayports.
September 14	Chatean Thierry [22]	U. S. Army.	New York via San Juan.	September 15	Coronado	Elders & Fyffes, Ltd.	Bristol via Kingston.
September 15	Coronado	Elders & Fyffes, Ltd.	Port Limon.				
September 15	Vireo [23]	U. S. Navy.	Norfolk.				

[22] Transport. [23] Mine sweeper.

PORT OF BALBOA.

September 8.	Santa Maria [1]	Union Oil Co. of California.	Port San Luis.	September 9	Santa Maria [1]	Union Oil Co. of California.	Port San Luis.

[1] Tanker.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in August, 1923, by Trade Routes.

In the table of traffic published under the above heading in the issue of September 12, an error was made by the inclusion among the vessels in the United States coastwise trade of a ship bound from South America to the United States. Correction of this error changes the first items in the section, "Pacific to Atlantic" (page 79), to read as follows:

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
United States intercoastal:							
United States	102	468,485	569,804	731,421	465,903	$583,189.15	935,407
From South America to United States:							
British	5	17,033	21,167	29,099	17,817	21,291.25	18,853
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	3,290
Danish	2	5,841	7,886	9,420	5,890	7,301.25	14,744
Japanese	2	8,733	9,436	11,746	8,508	10,916.25	16,856
Norwegian	2	4,576	6,498	7,465	4,591	5,720.00	12,603
United States	8	24,147	29,773	42,843	25,091	30,099.95	62,983
Totals	20	63,809	79,432	107,862	65,783	79,677.45	129,329

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended September 17:

Steamships *Acajutla*, rebush governor gear for dynamo engine and renew pins; repair piston rod for circulating pump; manufacture 3 scrapers and 12 port curtains; retin 4 copper pots; *Cristobal*, manufacture two oil cups for dynamo; renew nipple in fire-pump suction line and nipples, elbows, etc., where leaking in boilers, rooms 10 and 12, also in ladies' lavatory, main deck; relocate steam pipe to two forward ice machines; install additional brine cooler for refrigeration plant; scale boilers; calk wooden decks; repair sounding pipe No. 2 bilge; make and install supports for accommodation ladder; repair plumbing in waiters' quarters; tug *Tavernilla*, open up, examine, and repair cylinders and valve chests of main engine; balance pistons and cylinders, also steam cylinders of steering engine; reverse engine, both main feed pumps, main air pump, sanitary pump, fire pump, steam cylinders of capstan engine, and towing engine; clean and paint from fire room to after end of engine room; repair dynamo engine, baskets for boiler zincs, guards, upper deck, pilot-house anchor davit, and deck seams; make 2 new oil tanks; clean and test main condenser and steam side of feed water heater; overhaul boiler valves, stops, and fittings; cut off top of towing bitts; scale boilers; manufacture new manhole plates, etc.

Minor repairs—Steamships *Orcoma*, *Alvarado*, *Belgium Maru*, and *Muncaster Castle*; schooner *El Norte* and tug *Favorite*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 15, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Almagro	Pacific Steam Navigation Co	September 10.	September 10.	5	
Gold Star	U. S. Government	September 10.	September 13.	1	
Matinicock	Standard Oil Co.	September 11.	September 13.	10,650	
Laura C. Hall	Pacific Metals Corporation	September 10.	September 12.		51
Chaumont	U. S. Government	September 11.	September 13.	8	
Eastern Gale	U. S. Shipping Board	September 12.	September 16.	2,312	
Santa Ana	Grace Line	September 12.	September 13.	53	
Alvarado	Pacific Steam Navigation Co.	September 13.	September 13.		2
San Juan	Pacific Mail Steamship Co.	September 14.	September 14.		4
Bennekom	Dutch Steamship Line	September 14.	September 14.	143	
Salvador	Pacific Steam Navigation Co.	September 15.	September 15.		6
Colombia	Pacific Mail Steamship Co	September 15.	September 16.	244	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 15, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Stanley Dollar	Dollar Line	September 9.	September 9.	60	
Zacapa	United Fruit Co	September 9.	September 9.	35	124
Ulua	United Fruit Co	September 9.	September 9.	23	145
Candidate	Harrison Line	September 9.	September 10.	494	
Palena	Chilean Line	September 9.	September 13.	147	
Van Rensselaer	Royal Netherlands W. I. Mail	September 10.	September 11.	253	
Almagro	Pacific Steam Navigation Co	September 10.	September 10.	544	
Perou	French Line	September 10.	September 13.	358	
Cristobal	Panama Railroad Steamship Line	September 13.		1,910	
Bennekom	Royal Netherlands W. I. Mail	September 13.	September 14.	93	
Chateau Thierry	U. S. Army	September 14.	September 16.	918	
Acajutla	Pacific Steam Navigation Co	September 14.		71	
Coronado	Elders & Fyffes, Ltd	September 14.	September 15.	11	
Aconcagua	Chilean Line	September 14.	September 14.	2	
Mississippi	French Line	September 14.	September 15.	16	
Albaro	La Veloce Line	September 14.		25	
Colombia	Pacific Mail Steamship Co	September 15.	September 17.	528	

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Arrive Cristobal.	Leave Cristobal.	Arrive New York.
Cristobal	September 5.	September 13.	September 19.	September 26
General W. C. Gorgas	September 15.	September 24.	September 29.	October 7.
Panama	September 25.	October 3.	October 9.	October 16.
Cristobal	October 5.	October 13.	October 19.	October 26.
General W. C. Gorgas	October 15.	October 24.	October 29.	November 6.
Panama	October 25.	November 2.	November 9.	November 16.
Cristobal	November 5.	November 13.	November 19.	November 26.
General W. C. Gorgas	November 15.	November 24.	November 29.	December 7.
Panama	November 24.	December 3.	December 9.	December 16.
Cristobal	December 5.	December 13.	December 19.	December 26.
General W. C. Gorgas	December 15.	December 24.	December 29.	January 6.
Panama	December 24.	January 1.	January 9.	January 16.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 6, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of November 15, 1923, will go to the printer October 10. All changes or corrections in the present directory should be forwarded to the Supervisor of Telephones, Balboa Heights, not later than October 6. Proof corrections will be made to October 27, 1923.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.
Section "A"—White American, male:		Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. and 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.
Ward No. 1, Medical, Eye and Ear	44	
Ward No. 2, Medical, Eye and Ear	41	
Ward No. 3, Surgical	44	
Ward No. 4, Surgical	41	
Cells (2)	2	
	172	
Section "B":		
White American, female	23	Daily except Sunday, 2 to 4.30 p.m.; 6.30 to 8 p. m. Sundays and holidays, 8.30 to 11 a. m.; 2 to 4.30 p. m. 6.30 to 8 p. m.
White foreign, female	15	
Nursery	16	No visitors permitted.
Private rooms (40)	46	Daily, 9.30 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m.
Cells (2)	2	
	102	
Section "C":		
Ward No. 9, White foreign, male	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 10, Colored, eye and ear, convalescent medical	39	
Ward No. 11, Colored Acute surgical	39	
Ward No. 12, Colored Acute surgical	39	
Ward No. 13, Colored Convalescent surgical	39	
Ward No. 14, Colored Convalescent surgical	39	
Cells (6)	6	
Rooms (7)	7	
	247	
Section "D":		
Ward No. 15	41	
Ward No. 16	39	
Ward No. 17, Colored children	32	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 18, White children	30	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward No. 19, Colored female medical	41	
Ward No. 20, Colored female surgical	34	Wednesdays, Sundays, and holidays 1.30 to 3 p. m.
Rooms (6)	6	
Cells (6)	6	
	229	
Isolation:		No visitors permitted.
Floor No. 1	14	
Floor No. 2	29	
Floor No. 3	28	
Floor No. 4	28	
	99	
Total number	849	

Emergency passes are issued only by and in the discretion of the section nurse.

Official Circular.

Travel Expenses of Persons from Military or Naval Service.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 15, 1923.

To all concerned—The Panama Canal Act, approved August 24, 1912, in Section 4, in connection with the personnel required to complete, govern, and operate the Panama Canal, says:

"If any of the persons appointed or employed * * * shall be persons in the military or naval service of the United States, the amount of the official salary paid to any such peron shall be deducted from the amount of salary or compensation provided by or which shall be fixed under the terms of this Act."

Up to the time of the Comptroller General's decision of August 15, 1922, it was the custom of The Panama Canal to pay from its appropriations the travel expenses of persons in the military or naval service, referred to above, to and from the Isthmus, to the same extent that such travel expenses would have been paid from the Military or Naval appropriations, had such persons been transferred in the military or naval service.

The Comptroller General's decision of August 15, 1922, says:

" * * * Being in substantially the same status, such persons as are appointed from the military or naval service, as far as practicable, are governed by the conditions controlling as to employees appointed from civil life; that is, the expense, if any, incidental to packing, crating, transporting, etc., of household effects, etc., transportation to the seaboard, transportation of dependents, or other items of a similar character, is paid from the personal funds of the employee from civil life, and similar expenses, if any, of the military or naval employee, are paid from military or naval funds, but the total of such allowances thus paid from military or naval funds, together with the military or naval pay proper, if less than the salary or compensation provided in the appointment under The Panama Canal, is by the terms of the act of August 24, 1912, required to be deducted from such salary or compensation.

"The intent of the act of August 24, 1912, was to place the civilian and Army and Navy officers upon a footing of equality as to compensation and emoluments, and it is well settled that the term 'official salary,' as used in the act of August 24, 1912, for the purpose of the deductions from the salary or compensation provided in the appointment under The Panama Canal, includes all amounts, whether denominated pay or allowances, received under their commission, etc., and whether received in their own right or otherwise * * * If an employee of The Panama Canal appointed from the military or naval service is entitled to the allowances here in question it is so because they are of the 'official salary' of his rank, etc., in such military or naval service."

Under this decision The Panama Canal discontinued to pay the expenses of military or naval employees except to the extent that such expenses are paid for civilian employees.

Executive Orders covering the employment of civilian employees for service with The Panama Canal, provide that:

"The compensation of such persons will begin upon date of embarkation at port of departure from the United States and they will be granted free transportation from port of departure, including meals on the steamer, but no compensation or expenses for the journey to the port."

Also:

"After three years' service, employees who are citizens of the United States will be entitled to free transportation for themselves only, on termination of service, to any port of the United States, except that when such transportation costs the Government more than $40 the employee must pay the excess."

The above information is intended for all those who have to do with the travel expenses, including packing, crating and shipping, of household goods and personal effects of persons from the military or naval service of the United States when detailed for duty with The Panama Canal, and similar services and expenses on their return trip when relieved from duty with The Panama Canal.

M. L. WALKER,
Acting Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Company (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners, forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

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CANAL WORK IN AUGUST.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of August, 1923:

BALBOA HEIGHTS, C. Z., September 20, 1923.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of August, 1923:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 454. This is 20 less than the month of July, 1923, but exceeds any month prior to July. In addition to commercial transits, there were 7 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 22 transits of Government vessels on which no tolls were paid, making the total transits for the month 483, or an average of 15.58 transits per day.

Tolls for the month aggregated $2,050,656.97 on the 454 commercial vessels and $25.15 on the 7 launches, making a total of $2,050,682.12, or an average of $66,151.03 per day.

The average daily number of commercial transits was 14.65, as compared with 15.29 in July and 13.52 in June, 1923.

The total number of vessels and craft of all kinds transiting the Canal during the month of August, 1923 as compared with August, 1922 and August, 1921, is shown in the following table:

	August, 1923.	August, 1922.	August, 1921.
Commercial vessels	454	257	236
Noncommercial vessels, Army and Navy	22	25	31
Launches (under 20 tons measurement)	7	8	7
Total vessels and craft through Canal	483	290	274

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the Locks as follows:

	Northbound.	Southbound.	Total.
Gatun	15	16	31
Pedro Miguel	27	25	52
Miraflores	26	25	51

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month to the end of August during the calendar years 1922 and 1923:

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January...	210	352	846,516	1,610,692	807,298	1,591,932	$847,767.55	$1,505,285.55
February..	212	326	886,535	1,529,547	838,074	1,563,278	866,266.18	1,423,954.21
March....	234	409	975,811	1,988,192	960,089	1,940,928	956,726.76	1,827,718.44
April....	230	404	974,833	2,007,690	1,046,047	2,187,145	953,256 11	1,878,938 15
May.....	243	419	1,032,816	2,128,414	1,158,507	2,265,083	1,015,057.37	1,972,216.04
June.....	228	417	970,713	2,035,902	977,478	2,096,446	932,290.42	1,898,043.80
July.....	251	474	1,127,871	2,310,027	1,211,100	2,337,784	1,094,127.42	2,124,410.32
August....	290	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
Totals...	1,898	3,255	7,899,228	15,843,054	8,164,543	16,151,346	7,720,828.56	14,681,223.48

The increase in commercial traffic for the first 8 months of the present calendar year over the corresponding period of the past calendar year has been 70.44 per cent in point of number of vessels, 100.56 per cent in Panama Canal net tonnage, 96.59 per cent in cargo tonnage, and 90.15 per cent in tolls.

The following is a summary of the commercial traffic in August, 1923, as compared with August, 1922, and August, 1921, and the average month's traffic for the fiscal year which ended June 30, 1923:

	August, 1923.	August, 1922.	August, 1921.	Average per month for fiscal year 1923.
Number of vessels	454	257	236	331
United States equivalent tonnage	1,799,173	857,925	702,442	1,247,208
Panama Canal net tonnage	2,232,590	1,084,133	795,276	1,550,482
Registered gross tonnage	2,859,103	1,358,917	1,219,817	1,969,412
Registered net tonnage	1,801,356	853,212	780,945	1,240,868
Tolls	$2,050,656.97	$1,055,336.75	$955,380.75	$1,459,016.63
Tons of cargo carried	2,168,750	1,165,950	839,273	1,630,656

The average daily number of transits, tonnage, tolls and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for fiscal year 1923.
	August, 1923.	August, 1922.	August, 1921.	
Number of transits	14.65	8.29	7.61	10.87
Panama Canal net tonnage	58,038	34,972	25,654	50,975
Tolls	$66,150.22	$34,043.12	$30,818.73	$47,967.67
Tons of cargo carried	69,959	37,611	27,073	53,611

From the foregoing it will be seen that the traffic in August, 1923, as compared with August, 1922, increased as follows: Number of commercial transits, 76.65 per cent; Panama Canal net tonnage, 105.93 per cent; tolls, 94.31 per cent; and cargo, 85.75 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and cargo per vessel transiting the Canal during the month of August, 1923, as compared with August, 1922, and August, 1921, are shown in the following tabulation:

	Average per vessel.		
	August, 1923.	August, 1922.	August. 1921.
United States equivalent tonnage	3,963	3,391	3,958
Panama Canal net tonnage	4,918	4,285	4,090
Registered gross tonnage	6,298	5,371	5,169
Registered net tonnage	3,959	3,372	3,309
Tolls	$4,516.86	$4,106.37	$4,048.22
Tons of cargo (including vessels in ballast)	4,777	4,701	3,556
Tons of cargo (laden vessels only)	6,323	5,228	4,217

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of August for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
August, 1920	8	27,388	24,351	9	43,244	30,818
August, 1921	19	86,278	55,387	23	110,899	129,792
August, 1922	35	159,982	158,098	25	127,577	164,150
August, 1923	123	665,843	301,743	102	569,804	935,407

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-eight vessels of the United States Shipping Board transited the Canal during the month of August 1923; of these 16 were employed in the United States intercoastal trade. Thirteen of the 28 vessels were tankers, 14 were general cargo carriers, and one was a tugboat.

The following table shows the number, aggregate Panama Canal net tonnage and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of August for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
August, 1921...	15	76,570	46,542	18	79,390	91,897	33	155,960	138,439
August, 1922...	7	39,798	27,932	7	32,920	45,532	14	72,718	73,464
August, 1923...	15	75,875	37,482	13	68,553	97,962	28	144,428	135,444

ORIGIN AND DESTINATION OF TONNAGE.

The following statement shows the origin and destination of all tonnage passing through the Canal during the month of August, 1923, by principal geographical areas, as compared with August, 1922, and August, 1921; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

	August, 1923.	August, 1922.	August, 1921.
Origin, Pacific-bound tonnage.			
East coast of United States	960,989	375,187	265,359
Europe (including British Isles)	212,659	165,342	175,768
East coast of Mexico	13,897	27,788	15,527
Cristobal, C. Z.	18,245	20,963	21,202
East coast of South America	23,772	12,507	5,202
Miscellaneous	41,202	10,075	4,161
Totals	1,270,764	611,862	487,219
Destination, Pacific-bound tonnage.			
West coast of United States	816,379	231,608	162,371
West coast of South America	202,838	152,917	109,092
Australasia	85,956	87,229	70,551
Far East	101,011	116,154	94,486
Canada, west coast	36,631	21,730	25,573
West coast of Mexico and Central America	22,251	2,067	25,146
Miscellaneous	5,698	157	.....
Totals	1,270,764	611,862	487,219
Origin, Atlantic-bound tonnage.			
West coast of United States	677,461	186,496	229,626
West coast of South America	176,003	149,528	110,248
Australasia	37,347	32,317	68,661
Far East	31,635	53,247	20,628
Canada, west coast	27,973	45,994	21,480
West coast of Mexico and Central America	6,191	4,678	27,414
Miscellaneous	5,216	11	.....
Totals	961,826	472,271	478,057
Destination, Atlantic-bound tonnage.			
East coast of United States	714,680	269,944	194,279
Europe (including British Isles)	148,270	163,885	231,830
East coast of Mexico	51,924	9,865	27,256
Cristobal, C. Z.	18,452	17,726	22,022
East coast of South America	8,495	4,874	622
Miscellaneous	20,005	5,977	2,048
Totals	961,826	472,271	478,057

TOLLS.

Under the present dual method of assessing tolls, the revenue from this source during the month of August, 1923 was $2,050,656.92. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively throughout as a basis for collecting tolls, the revenue from tolls would have been increased by $357,593.99, distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$40,736.78	$29,936.20	$70,672.98
Chilean	5,509.65	4,247.65	9,757.30
Danish	1,939.20	2,161.95	4,101.15
Dutch	9,518.10	4,645.85	14,163.95
French	3,699.35	1,899.55	5,598.90
German	6,620.90	9,566.20	16,187.10
Italian	997.45	.....	997.45
Japanese	3,693.90	2,640.70	6,334.60
Norwegian	210.04	3,369.00	3,579.04
Peruvian	4,959.50	4,673.95	9,633.45
Spanish	571.40	1,243.55	1,814.95
Swedish	3,384.20	.....	3,384.20
United States	83,894.81	127,474.11	211,368.92
Totals	165,735.28	191,858.71	357,593.99

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$55,324.87	$107,805.65	$163,130.52
United States foreign trade	27,722.14	18,817.60	46,539.74
United States-Canal Zone trade	847.80	853.80	1,701.60
Foreign trade	.....	[1] 2.94	[1] 2.94
Totals	83,894.81	127,474.11	211,368.92

[1] Indicates gain.

Of the additional $357,593.99 tolls that would have been assessed by using exclusively the Panama Canal rules of measurement, $14,190 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in August, 1923, is shown in the following table, segregated by nationality of vessels, laden cargo vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, August, 1923.
British	.92	1.25	1.07
Chilean	.27	.31	.28
Colombian	1.53	1.56	1.55
Danish	1.30	1.87	1.61
Dutch	.91	1.43	1.15
Finnish	.....	1.21	1.21
French	.98	1.53	1.09
German	.77	1.45	1.11
Italian	.17	.....	.17
Japanese	.95	1.24	1.08
Norwegian	1.15	1.87	1.58
Peruvian	.14	.63	.33
Spanish	.06	.80	.52
Swedish	1.49	.....	1.49
United States	1.25	1.61	1.49
Average ratio, August, 1923	1.07	1.51	1.32
Average ratio, August, 1922	1.03	1.29	1.17
Average ratio, August, 1921	.85	1.20	1.03

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.44	1.63	1.00
United States and South America	.46	1.63	1.01
United States and Europe	.65	1.58	.93
United States and Far East	1.29	1.09	1.24
Europe and South America	.62	1.23	.93
Europe and Canada	.84	1.41	1.10
Cristobal and South America	.21	.34	.28
United States and Australasia	.84	.05	.86
United States and Canada	.74	1.16	.95

Cargo moving through the Canal in August, 1923, totaled 2,168,750 long tons. This is nearly double the amount in August, 1922, which was 1,165,950 tons. There were 738,600 tons passing from Atlantic to Pacific, as compared with 556,761 in August, 1922, and 1,439,150 tons of cargo passing from Pacific to Atlantic, as compared with 609,189 tons in August, 1922. The Atlantic to Pacific cargo tonnage of August, 1923, was approximately one and one-third times that of August, 1922, and the Pacific to Atlantic cargo tonnage of August, 1923, was approximately two and one-third times that of August, 1922.

Mineral oils, the heaviest single item passing from the Pacific to Atlantic, made up approximately 62 per cent of the total with 886,595 tons, as compared with 33,713 tons in August, 1922. Lumber and nitrates were the next heaviest items with 115,759 tons of lumber and 112,114 tons of nitrates, as compared with 145,213 tons of lumber and 97,438 tons of nitrates in August, 1922. From the Atlantic to the Pacific manufactured goods make up the heaviest single item with 218,124 tons in August, 1923, as compared with 160,534 for August, 1922.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit, and while incomplete are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	August, 1923.	August, 1922.	August, 1921.
Atlantic to Pacific.			
Manufactured goods:			
Iron and steel	171,579	111,749	28,373
Railroad material	8,860	20,846	2,796
Machinery	17,966	.....	.....
Textiles	19,719	27,939	5,516
Mineral oils:			
Crude petroleum	31,536	45,319	36,454
Lubricating	7,194	3,983	2,117
Refined	82,850	70,911	28,685
Metals, various	23,542	.....	.....
Coal and coke	17,914	31,175	24,066
Cotton	3,030	9,719	34,482
Ammonia	7,217	.....	.....
Automobiles	8,658	.....	.....
Cement	42,134	4,909	.....
Paper	12,719	6,858	1,508
Other and general	283,682	223,353	153,973
Totals	738,600	556,761	319,970
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	872,718	17,343	570
Lubricating oil	57	11,249	.....
Refined oil	13,820	5,121	2,361
Nitrates	112,114	97,438	39,349
Lumber	115,759	145,213	35,054
Barley	28,918	50,689	77,661
Borax	4,097	5,322	.....
Canned goods	26,216	48,253	21,768
Beans	4,094	4,594	5,571
Coffee	3,554	3,780	6,710
Cold storage	16,092	9,664	31,658
Metals, various	32,626	20,498	21,425
Ores, various	49,700	39,528	6,524
Rice	5,942	5,177	5,033
Cotton	5,623	5,061	4,140
Sugar	22,798	33,757	49,406
Wool	3,785	6,637	10,468
Other and general	112,237	99,865	203,605
Totals	1,430,150	609,189	521,303

A detailed statement of traffic through the Panama Canal by trade routes for the month of August, 1923, was published in THE PANAMA CANAL RECORD of September 12, 1923. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of August, 1923, as compared with the same month in the years 1922 and 1921:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	August, 1923.	August, 1922.	August, 1921.	August, 1923.	August, 1922.	August, 1921.
United States intercoastal	123	35	19	102	25	23
United States and South America	20	16	11	20	21	13
Europe and South America	18	11	11	16	12	10
United States and Far East	16	21	18	6	9	4
Europe and United States	19	12	17	8	8	23
Europe and Canada	3	3	3	2	7	2
Europe and Australasia	5	7	6	3	6	11
United States and Australasia	9	5	5	2	1	2
Mexico and South America	3	4	2	1	1	1
Cristobal and South America	6	11	12	7	9	11
United States and Canada	3	1	1	3	2	2
Miscellaneous	36	15	15	23	15	14
Totals	261	141	120	193	116	116
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	665,843	159,892	86,278	569,804	127,577	110,899
United States and South America	88,686	59,491	31,053	79,432	78,350	42,871
Europe and South America	73,352	47,156	47,902	71,877	52,121	45,656
United States and Far East	90,161	111,865	90,256	31,635	48,807	20,622
Europe and United States	92,302	53,981	68,334	39,078	40,873	109,893
Europe and Canada	16,271	15,303	16,695	13,092	34,919	12,134
United States and Australasia	48,432	32,241	27,714	9,003	4,135	4,514
Mexico and South America	13,897	24,831	9,587	4,831	4,822	4,274
Cristobal and South America	12,188	18,094	17,372	12,615	14,235	16,825
United States and Canada	15,361	6,427	4,735	14,881	11,075	7,304
Miscellaneous	164,271	82,581	87,293	115,578	55,357	103,065
Totals	1,270,764	611,862	487,219	961,826	472,271	478,057
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	301,743	158,098	55,387	935,407	164,150	129,792
United States and South America	40,983	28,246	10,949	129,329	127,238	47,717
Europe and South America	45,529	43,968	23,500	89,042	73,800	45,625
United States and Far East	116,525	140,316	112,454	34,595	45,833	29,308
Europe and United States	60,520	33,258	684	61,564	62,674	174,198
Europe and Canada	13,719	10,654	8,828	18,465	54,263	17,702
Europe and Australasia	24,622	35,736	16,266	17,414	33,639	54,877
United States and Australasia	40,533	27,630	31,150	453	1,465	1,585
Mexico and South America	26,385	42,800	17,718	.....	.....	.....
Cristobal and South America	2,616	3,747	3,443	4,331	4,459	8,490
United States and Canada	11,419	6,440	2	17,255	11,712	5,962
Miscellaneous	54,006	25,868	37,589	122,295	29,986	6,047
Totals	738,600	556,761	317,970	1,430,150	609,189	521,303

LATIN-AMERICAN TRAFFIC.

Tonnage of vessels in the Latin-American trade shows an increase in both directions and in both cargo tonnage and Panama Canal net for the month of August, 1923, as against the months of August, 1922 and 1921. The increase in cargo tonnage southbound for the month is, however, slight, being but 4,067 tons, the total being 138,453 tons for August, 1923, as against 134,396 for August, 1922, and 93,199 for August, 1921. Cargo tonnage for the month of July southbound was 103,366 tons.

Northbound tonnage shows the larger increase over the two preceding years, being 328,391 for August, 1923, as against 204,396 for August, 1922, and 106,174 for August, 1921. Northbound tonnage for July, 1923, was 432,502.

Tolls also show an increase both ways over the two preceding years, the figures being, southbound August, 1923, $225,468.97, as against $156,468.95 in August, 1922 and $137,723.62 for August, 1921; northbound $239,112.87 for August, 1923, as against $151,709.70 for August, 1922 and $131,986.74 for August, 1921.

The principal commodities routed to Latin-American points were cement, coal, manufactured goods, and crude oil. Copper, copper ore, nitrates, crude oil, and sugar composed the larger items from Latin-American points.

Nitrate shipments during the month were 112,114 tons as against 185,080 tons in July, 1923, and 40,416 tons in June, 1923.

In the tabulation below are shown the tonnage and cargo tonnage of all vessels routed to and from Latin-America, segregated by nationality of vessels:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	24	70,430	82,188	114,670	71,136	$77,010.52	53,044
Chilean	5	9,174	14,130	18,509	10,729	11,446.15	3,808
Colombian	1	334	335	864	614	402.00	514
Danish	1	1,345	2,113	2,327	1,335	1,681.25	1,374
Dutch	4	8,131	13,710	13,193	8,138	10,163.75	16,466
French	1	4,879	4,959	6,674	4,230	5,950.80	4,325
German	4	12,339	15,603	20,076	12,524	15,423.75	12,632
Italian	1	4,051	5,051	7,028	4,175	5,063.75	870
Japanese	2	7,676	9,182	12,337	7,592	8,145.82	2,550
Norwegian	3	9,274	9,882	12,320	8,814	8,595.12	2,326
Peruvian	3	4,010	8,310	12,666	6,614	5,012.50	1,160
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	236
United States	21	67,313	83,095	109,846	66,651	72,468.56	39,148
Totals, August, 1923	71	202,240	252,455	336,127	205,894	225,468.97	138,45
Totals, August, 1922	50	131,907	169,266	225,097	137,484	156,468.95	134,396
Totals, August, 1921	48	110,623	142,593	184,947	114,033	137,723.62	93,199
Pacific to Atlantic.							
British	27	101,237	120,409	164,500	101,255	122,480.03	149,485
Chilean	3	7,087	10,922	14,901	8,446	8,858.75	3,396
Colombian	1	334	335	864	614	402.00	535
Danish	2	5,841	7,886	9,420	5,890	7,301.25	14,744
Dutch	2	7,387	9,914	11,651	7,306	9,233.75	15,190
Finnish	1	1,727	1,751	1,905	1,610	2,101.20	3,100
German	3	8,191	13,729	14,247	8,228	10,238.75	20,022
Japanese	2	8,733	9,436	11,746	8,508	10,916.25	16,856
Norwegian	3	8,891	11,414	14,567	9,025	11,113.75	22,470
Panaman	1	24	27	40	19	19.44	.....
Peruvian	3	4,225	8,296	13,764	7,190	5,281.25	5,252
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	4,962
United States	14	36,328	45,781	63,163	37,589	45,025.20	72,379
Totals, August, 1923	64	194,918	246,054	329,784	201,681	239,112.87	328,391
Totals, August, 1922	48	124,838	158,171	203,835	126,586	151,709.70	204,396
Totals, August, 1921	46	116,107	146,490	192,066	118,531	131,986.74	106,174

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 62.77 per cent of the total transits of the Canal during the month, comprised approximately 68 per cent of the net tonnage, and carried approximately 69 per cent of the total cargo in transit through the Canal.

The following statement shows the commercial traffic through the Canal in August, 1923, classified according to nationality of vessels by directions, and then the combined traffic in both directions:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	58	215,911	265,447	340,343	212,832	$243,954.10	178,712
Chilean	5	9,174	14,130	18,509	10,729	11,446.35	3,808
Colombian	1	334	335	864	614	402.00	514
Danish	2	5,568	7,416	8,964	5,558	6,960.00	9,920
Dutch	5	12,678	20,766	20,503	12,633	15,847.50	18,844
French	4	17,928	21,389	26,267	16,311	21,967.45	21,064
German	6	17,198	23,334	28,200	17,350	21,497.50	18,038
Italian	1	4,051	5,051	7,028	4,175	5,063.75	870
Japanese	8	31,835	37,588	48,899	31,436	36,552.66	25,911
Norwegian	8	27,676	30,054	38,414	25,014	26,366.12	11,739
Peruvian	3	4,010	8,310	12,666	6,614	5,012.50	1,160
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	236
Swedish	2	4,964	7,991	8,184	6,238	6,295.00	11,933
United States	157	665,170	825,056	1,055,343	665,481	678,512.47	435,851
Totals, August, 1923	261	1,019,781	1,270,764	1,619,801	1,018,327	1,083,892.40	738,600
Totals, August, 1922	141	480,579	611,862	765,642	478,744	576,958.32	556,761
Totals, August, 1921	120	394,295	487,219	607,852	387,071	465,017.24	317,170

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Pacific to Atlantic.							
British	35	140,642	171,835	228,554	141,463	$171,736.28	202,355
Chilean	3	7,087	10,922	14,901	8,446	8,858.75	3,397
Colombian	1	334	335	864	614	402.00	535
Danish	2	5,841	7,886	9,420	5,890	7,301.25	14,744
Dutch	3	13,163	17,465	21,050	13,120	16,453.75	25,041
Finnish	1	1,727	1,751	1,905	1,610	2,101.20	3,100
French	1	3,289	4,934	5,379	3,199	4,111.25	7,573
German	5	13,780	22,296	23,529	13,832	17,225.00	32,652
Japanese	5	21,796	24,782	30,731	21,598	27,097.70	30,813
Norwegian	4	11,820	15,120	19,388	11,994	14,775.00	28,270
Panaman	1	24	27	40	19	19.44	.....
Peruvian	3	4,225	8,296	13,764	7,190	5,281.25	5,252
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	4,962
United States	127	550,751	670,023	860,761	548,044	685,250.45	1,071,457
Totals, August, 1923	193	779,392	961,826	1,239,302	783,029	966,764.57	1,430,150
Totals, August, 1922	116	377,346	472,271	593,275	374,468	478,378.43	609,189
Totals, August, 1921	116	398,147	478,057	611,965	393,874	490,363.54	521,303
Combined traffic.							
British	93	356,553	437,282	568,897	354,295	415,690.38	381,067
Chilean	8	16,261	25,052	33,410	19,175	20,305.10	7,204
Colombian	2	668	670	1,728	1,228	804.00	1,049
Danish	4	11,409	15,302	18,384	11,448	14,261.25	24,664
Dutch	8	25,841	38,231	41,553	25,753	32,301.25	43,885
Finnish	1	1,727	1,751	1,905	1,610	2,101.20	3,100
French	5	21,217	26,323	31,646	19,510	26,078.70	28,637
German	11	30,978	45,630	51,729	31,182	38,722.50	50,690
Italian	1	4,051	5,051	7,028	4,175	5,063.75	870
Japanese	13	53,631	62,370	79,630	53,034	63,650.36	56,724
Norwegian	12	39,496	45,174	57,802	37,008	41,141.12	40,009
Panaman	1	24	27	40	19	19.44	.....
Peruvian	6	8,235	16,606	26,430	13,804	10,293.75	6,412
Spanish	3	8,197	10,051	14,633	9,352	10,246.25	5,198
Swedish	2	4,964	7,991	8,184	6,238	6,205.00	11,933
United States	284	1,215,921	1,495,079	1,916,104	1,213,525	1,363,772.92	1,507,308
Totals, August, 1923	454	1,799,173	2,232,590	2,859,103	1,801,356	2,050,656.97	2,168,750
Totals, August, 1922	257	857,925	1,084,133	1,358,917	853,212	1,055,336.75	1,165,950
Totals, August, 1921	236	792,442	965,276	1,219,817	780,945	955,380.78	839,273

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and Nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama tonnage.	Tolls.	No. of ships.	Panama tonnage.	Tolls.
Tank ships:						
British	8	43,346	$31,366.08	2	9,554	$6,878.88
Norwegian	1	5,520	4,049.25	.....	.....	.....
United States	79	469,542	339,344.49	.....	.....	.....
General cargo ships:						
British	8	27,593	19,870.02	.....	.....	.....
Japanese	2	10,158	7,313.76	.....	.....	.....
Norwegian	5	14,293	11,356.92	.....	.....	.....
Panaman	.....	.....	.....	1	27	19.44
United States	3	7,742	5,432.73	2	6,073	4,375.50
Totals	106	578,194	418,733.25	5	15,654	11,273.82

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of August, 1923, by kind of vessels is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama tonnage.	Tolls.	No. of ships.	Panama tonnage.	Tolls.
Tank ships:						
Laden	7	39,679	$39,354.90	76	461,714	$486,848 70
Ballast	88	518,408	374,759.84	2	9,554	6,878.88
General cargo and passenger ships:						
Laden	147	651,183	623,960.73	112	484,458	468,642.05
Ballast	13	53,475	40,097.70	2	6,073	4,375.50
Miscellaneous	6	8,019	5,719.23	1	27	19.44
Totals	261	1,270,764	1,083,892.40	193	961,826	966,764.57
Steamers	243	1,220,771	1,037,200.32	183	958,650	944,174.93
Motor vessels	8	38,799	37,133.75	4	20,124	19,228.75
Motor schooners	4	894	1,048.50	3	171	176.94
Yachts	1	82	61.50	.....	.....	.....
Dredges	1	501	360.72	.....	.....	.....
Barges	1	175	210.00	.....	.....	.....
Sailing vessels	1	2,301	2,805.60	3	2,881	3,183.95
Tugs	1	233	26.25	.....	.....	.....
Colliers	1	7,008	5,045.76	.....	.....	.....
Totals	261	1,270,764	1,083,892.40	192	981,826	966,764.57

Of the 426 steam vessels, 320 were oil burners, 191 coal burners, and 5 burning either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of August, 1923. If tolls had been assessed against these vessels at commercial rates the amount would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	1	[1] 3,200	$1,600.00	3	[1] 14,550	$7,275.00
Mine sweeper	1	[1] 950	475.00	.....	.....	.....
Submarine	1	[1] 520	260.00	1	[1] 862	431.00
Supply ships	2	[2] 6,445	7,734.00	1	[1] 14,400	7,200.00
Supply ships	1	[3] 5,270	6,587.50	2	[3] 10,594	13,242.50
Tugs	3	[1] 3,000	1,500.00	3	[1] 3,000	1,500.00
Transport	.....	.....	.....	1	[3] 3,993	4,991.25
U. S. Army vessels:						
Transport	1	[2] 3,597	5,402.40	.....	.....	.....
Transport	1	[3] 5,764	7,205.00	.....	.....	.....
Totals	11	28,728	30,763.90	11	47,399	34,639.75

[1] Displacement tonnage. [2] Panama Canal net tonnage. [3] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	18,912
Pacific to Atlantic	11,206
Totals	30,118

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statement of commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	7	25	$25.15
Pacific to Atlantic	.....	.....	.....

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of August, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Totals.
Local cargo arriving....tons..	24,233	75,912	100,145
Local cargo shipped....tons..	1,894	298	2,192
Transit cargo arriving....tons..	26,647	1	26,648
Transit cargo clearing....tons..	17,004	255	17,259
Cargo received for transshipment....tons..	2,127,003	2,230,585	4,357,588
Cargo transshipped....tons..	1,991,290	2,212,361	4,203,651
Vessels supplied with bunker coal:			
Army vessels	1	.....	1
Commercial, other than Panama Railroad	44	4	48
Panama Railroad vessels	1	.....	1
Total vessels supplied with coal	46	4	50
Coal supplied to above vessels:			
Army vessels....tons..	342	.....	342
Commercial, other than Panama Railroad....tons..	10,421	374	10,795
Panama Railroad vessels....tons..	106	.....	106
Total coal supplied to vessels....tons..	10,869	373	11,242
Coal issued, miscellaneous:			
Panama Canal departments....tons..	210	886	1,096
U. S. Army, excepting vessels....tons..	86	.....	86
Individuals and companies....tons..	214	30	244
Total coal issued from Panama Canal deposits:			
August, 1923....tons..	11,379	1,289	12,668
August, 1922....tons..	27,183	835	28,018
August, 1921....tons..	19,964	1,364	21,328
Coal on hand, September 1, 1923....tons..	90,222	1,240	91,462
Coal on hand, August 1, 1923....tons..	65,437	2,529	67,966
Coal received during month....tons..	36,164	.....	36,164
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	4,759.35	14,223.19	18,982.54
Panama Railroad Co....bbls..	943.48	784.19	1,727.67
Army and Navy....bbls..	552.97	117.14	670.11
United States Shipping Board (borrowed)....bbls..	.....	2,858.53	2,858.53
Total issues and sales....bbls..	6,255.80	17,983.05	24,238.85
Fuel oil on hand, September 1, 1923....bbls..	64,363.91	44,158.76	108,522.67
Diesel oil sold during August, 1923....bbls..	91.69	.....	91.69
Diesel oil on hand, September 1, 1923....bbls..	43,131.34	809.28	43,940.62
Oil pumped for individuals and companies....bbls..	547,427.35	807,483.47	1,354,910.82
Miscellaneous transfers....bbls..	3,727 80	22,842.61	26,570.41
Gasoline pumped for individuals and companies....bbls..	.....	2,192.87	2,192.87
Gasoline pumped for Panama Canal....bbls..	610.64	858.52	1,469.16
Total fuel oil and gasoline handled....bbls..	558,113.28	851,360.52	1,409,473.80
Admeasurement certificates of vessels:			
U. S. equivalent issued or made	36	6	42
Measured for Panama Canal net tonnage	7	3	10
Remeasured for Panama Canal net tonnage	31	7	38
Panama Canal net tonnage corrected	17	3	20
U. S. equivalent tonnage corrected	27	12	39
Services of harbor equipment:			
Tugs, total operating hours	439½	387¼	826¾
Launches, total operating hours	1,394	1,956¾	3,350¾
Scows, total operating days	.....	9	9
Revenue from tug service, pilotage, etc.:			
Tug service	$12,227.70	$12,042.50	$24,270.20
Pilotage	13,210.00	8,898.00	22,108.00
Seamen	8,672.00	6,704.00	15,376.00
Launch service	1,997.00	3,325.00	5,322.00
Wharfage	.....	5,185.00	5,185.00
Ships measured	315.00	150.00	465.00
Miscellaneous cash collections	1,365.54	633.88	1,999.42
Vessels repaired at Panama Canal shops:			
Commercial	38	28	66
U. S. Army and Navy	10	12	22
Canal equipment	10	18	28
Vessels drydocked:			
Commercial	3	3	6
U. S. Army and Navy	3	2	5
Canal equipment	3	2	5
Clearances issued	239	276	515
Bills of health issued	244	282	526

ALL VESSELS ENTERING AND CLEARING PORTS.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	512	3,186,904	2,050,410	479	3,010,646	1,901,639
Vessels entering port, not transiting Canal	51	292,391	174,320	14	70,732	43,680
Vessels transiting Canal and handling passengers and cargo at terminals	66	352,435	215,354	47	237,659	145,075
Ships clearing.						
All vessels, including those transiting Canal	507	3,130,741	2,016,060	474	2,985,113	1,882,596
Vessels entering port but not transiting Canal	49	272,348	162,764	11	57,603	35,939
Vessels transiting Canal and handling passengers and cargo at terminals	66	349,983	214,178	47	237,659	145,075

MOVEMENT OF PASSENGERS.

The following statement shows the number of passengers arriving and embarking at Canal ports during the month of August, 1923:

	At Cristobal.			At Balboa.		
	First class.	Others.	Total.	First class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,069	785	1,854	20	14	34
From Pacific ports	127	119	246	113	104	217
Total disembarking	1,196	904	2,100	133	118	251
Embarking:						
For Atlantic ports	1,717	558	2,275	9	14	23
For Pacific ports	133	71	204	77	123	200
Total embarking	1,850	629	2,479	86	137	223
Remaining on board vessels:						
From Atlantic to Pacific ports	837	1,819	2,656	922	2,388	3,310
From Pacific to Atlantic ports	670	630	1,300	765	716	1,481
From Atlantic to Atlantic ports	598	182	780	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	42	445	487
Total remaining on board	2,105	2,631	4,736	1,729	3,549	5,278
Total passengers arriving	3,301	3,535	6,836	1,862	3,667	5,529
Total passengers departing	3,955	3,260	7,215	1,815	3,686	5,501

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of August, 1923:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$183.65	$1,099.28	$6,566.22	.....	$126.11	$7,975.26
Panama Railroad vessels	32.40	12.15	2,117.50	.....	475.50	2,637.55
Other commercial vessels	1,145.32	5,414.53	11,552.19	503.63	2,389.11	21,004.78
Total sales, August, 1923	1,361.37	6,525.96	20,235.91	503.63	2,990.72	31,617.59
Total sales, August, 1922	1,175.13	5,352.69	19,787.72	.....	2,107.52	28,423.06
Total sales, August, 1921	3,306.15	4,859.65	23,889.06	5,152.98	1,271.17	38,479.01
Sales at Balboa to:						
U. S. Government vessels	278.15	813.34	11,977.77	.....	1,071.98	14,141.24
Other commercial vessels	853.32	2,586.68	8,732.47	.....	5,013.03	17,185.50
Total sales, August, 1923	1,131.47	3,400.02	20,710.24	.....	6,085.01	31,326.74
Total sales, August, 1922	400.36	1,146.37	7,199.63	2,003.18	715.11	11,464.65
Total sales, August, 1921	1,129.88	7,889.82	53,711.54	1,013.98	998.91	64,744.13

The aggregate sales to government vessels during the month were $22,116.50; to Panama Railroad vessels, $2,637.55; to other commercial vessels $38,190.28; making a grand total of $62,944.33.

LOCK OPERATIONS.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages, during the month of August, 1923, as compared with the same month in the years 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Aug. 1923.	Aug. 1922.	Aug., 1921.
Gatun	187	243	430	8	3	11	441	260	245
Pedro Miguel	190	254	444	11	18	29	473	280	276
Miraflores	191	254	445	12	11	23	468	279	274
Totals	578	751	1,319	31	32	63	1,382	819	795
	Number of vessels put through locks.								
Gatun	201	270	471	26	30	56	527	314	294
Pedro Miguel	193	261	454	39	40	79	533	318	337
Miraflores	193	261	454	38	41	79	533	322	342
Totals	587	792	1,379	103	111	214	1,593	1,254	973

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
U. S. Army and Navy vessels	25	27	28
Panama Canal equipment	31	52	51

The total consumption of water for lockages, loss in leakage, and maintenance was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockage	1,729,130,000	1,607,350,000	1,416,780,000
Leakage	30,000,000	6,100,000	20,000,000
Maintenance			8,730,000
Total consumption, August, 1923	1,759,130,000	1,613,450,000	1,445,510,000
Total consumption, August, 1922	1,036,580,000	975,970,000	851,560,000
Total consumption, August, 1921	955,490,000	875,430,000	891,700,000

METEOROLOGY AND HYDROGRAPHY.

Rainfall during the month was about 50 per cent heavier than for the month of July, 1923, but was a little below the August mean over the Pacific and Atlantic sections and slightly over the August mean in the central section.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of August, 1923, are shown in comparative form:

Rainfall.	August, 1923.	August, 1922.	August—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Total rainfall for month:					
Pacific section	6.49	3.92	12.03	3.92	8.05
Central section	11.85	8.22	15.31	8.22	11.09
Atlantic section	15.41	10.33	33.30	6.91	16.04
Maximum recorded on any one day	4.51	5.60	[1] 10.86	.....	.....
Gatun Lake watershed	13.12	10.08	18.61	8.88	12.10
Chagres River above Alhajuela	15.71	11.13	22.20	7.62	14.70
Maximum recorded for month at any one point	19.29	1.453	38.31	.....	.....
Minimum recorded for month at any one point	4.79	1.29	.....	1.14	.....

NOTE—Extreme outlying stations in the Republic of Panama not included in this report.

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Porto Bello, December 28-29, 1909.

Rainfall.	August, 1923.	August, 1922.	August—Years of record.		
			Maximum.	Minimum.	Mean.
Hydrography.	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*
Discharge of Chagres River at Alhajuela	2,576	2,624	4,724	1,579	2,998
Maximum momentary discharge for the month	13,238	23,150	[2] 37,000		
Gatun Lake watershed total yield	6,181	5,676	11,656	4,956	7,561
Gatun Lake watershed net yield	5,721	5,120	11,089	4,437	7,077
Draft on Gatun Lake for lockages and power	2,600	2,038	2,600	[3] 1,390	[3] 1,982

[2] Occurred on August 21, 1911. [3] Not including August, 1914.

SEISMOLOGY.

Seismic tremors were recorded on the 8th, 28th, and 31st, that of the 31st being at the beginning of the Japanese disturbance.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	August, 1923.	August, 1922.	August, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,581,400	4,297,700	5,[illegible],900
Miraflores steam plant		490	2,100
Power distributed to consumers, KWH	3,979,534	3,620,168	4,[illegible],235
Loss of power in plants, accessories, transmissions, and transformers, KWH	601,866	678,022	861,765
Per cent of loss of power to gross output	13.13	15.77	15.6
Water consumption, cubic feet	3,628,060,883	3,386,946,550	4,186,412,827
Oil consumption, barrels	873	1,885	1,990

Miscellaneous electrical repairs and installations of electrical equipment were made on 27 vessels during the month. There were 372 work orders issued for work to be performed by the Electrical Division, as compared with 298 for July, 1923, and 313 for August, 1922.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 58 vessels at Cristobal and 58 at Balboa. Of these, 9 were placed in dry dock at Cristobal and 8 at Balboa. The more important repair work during the month included the following:

Under-water work on the hull and shafting of the steamship *Colon* was completed and the vessel removed from dry dock.

Propeller shaft and propeller were installed on the starboard side of the Spanish passenger steamer *Manuel Calvo* and coupling on the port side tightened up.

Main and auxiliary engines, pumps, and condenser on tug *Gorgona* examined and repaired and other extensive repairs made.

Installed manhole ring and cover on steamship *Panama* and ceiling on side walls of crew's quarters renewed. Repaired main-deck planking, cargo blocks, rail, stanchions, fairlead, M. P. slide valve, main condenser head, feed pump and fire tools. Main mast cut off and renewed and other minor repairs made.

Steamship *Cristobal*: repaired scupper pipes, feed pumps, winch throttle valves, winch gears, wrenches, chisels, auxiliary steam line, galley steam table and sounding pipe guards. Installed guard plates over steam pipes. Manufactured 4 saloon-deck scupper covers, two manhole plates, 12 square washer and main-stay clip.

Steamship *Balboa:* Drydocked, staged, scraped, wirebrushed and painted bottom. Drew tail shaft for inspection. Repaired on line bilge pump plunger, one line feed pump plunger, soil pipe from deck passengers toilet, 4 steel cargo blocks; repaired rudder and bush pintles. Scaled and cleaned boilers. Installed zinc plates and installed 3 fire-room floor plates. Made templates on propeller hub bore and of coupling bolts in tail shaft. Welded steel plating. Installed 3 soft patches on hull. Manufactured 12 port-light pans.

Construction of two locally designed boring machines for facing the seats of the 72-inch cylindrical valves for flooding the locks was undertaken. Two types, differing in the rotating element but otherwise interchangeable, are being constructed for service trials to determine the most efficient.

One hundred and twenty-three individual and company jobs were issued during the month, including 6 for Navy vessels and 15 for vessels of the Panama Railroad Steamship Line. Of the remaining 102, 41 were for various commercial vessels.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	August, 1923.			July, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	10	310	47,652	8	286	31,485
Steel	2	189	6,729	2	46	6,306
Nonferous	5	499	15,652	1	1,001	11,362

A total of 595 job orders were completed during the month, 617 job orders were authorized during the month, 596 job orders were on hand at the beginning of the month, leaving 618 unfinished at the close of the month. There were 347 standing orders in force at the beginning of the month, 4 were completed during the month, and none authorized, leaving 343 standing orders for work at the close of the month.

MUNICIPAL ENGINEERING.

The total output of all pumping stations and of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

Item.	August, 1923.	August, 1922.	August, 1921.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	643,912,000	629,260,500	740,414,000
Filtration plants	370,823,000	360,180,000	455,145,000
Water consumed by Panama	89,169,000	88,131,000	97,595,000
Water consumed by Colon	46,999,000	56,265,500	54,005,250
Sales of water to vessels	9,223,803	9,181,835	12,239,017

Work was continued on the erection of two 80-foot radio masts at France Field. Work was begun on installation of new oil line layout for the Supply Department at Balboa. Construction of automobile parking space at Administration Building at Balboa Heights was begun and 30 per cent completed. New 12-inch pipe line was laid across the Canal at Paraiso.

DREDGING.

The general movement on West Culebra continued during the month between stations 1,770 and 1,795; the maximum movement toward the water from one bank being 7.9 feet, between stations 1,774 and 1,776, with an average of 3.3 between limits above mentioned.

Only slight movement along the water front was noted at East Culebra.

At East Lirio Curve a movement occurred on the 3d, involving about 6,500 cubic yards. This material was removed with a dipper dredge.

At Stations 1690 + 50 to 1691 the east bank broke on the night of August 7th, about 3,000 cubic yard of rock coming into the prism, *Teredo No. 2* worked in this area, drilling and blasting 1,513 cubic yards of material, all of which was removed by dipper dredges.

All other slides, including Cucuracha, have been quiescent during the month.

There was no interference with Canal traffic.

The total excavation during August, 1923, was 644,550 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
2,100	1,300	800	Maintenance	Gaillard Cut, West Culebra slide	*Cascadas.*
38,000	13,000	25,000	Maintenance	Gaillard Cut East and West	*Cascadas.*
1,700	.....	1,700	Auxiliary	Municipal Engineering Division	*Cascadas.*
7,700	1,700	6,000	Maintenance	Gillard Cut, East Lirio slide	*Cascadas.*
25,300	5,300	20,000	Maintenance	Gaillard Cut, Paraiso, P. I	*Cascadas.*
25,600	.....	25,600	Maintenance	Gaillard Cut, La Pita improvement project	*Paraiso.*
20,850	.....	20,850	Maintenance	Gaillard Cut, La Pita improvement project	*Gamboa.*
24,750	5,750	19,000	Maintenance	Gaillard Cut, West Lirio slide	*Gamboa.*
3,150	.....	3,150	Maintenance	Gaillard Cut	*Gamboa.*
135,000	135,000	.....	Maintenance	Gaillard Cut East and West	*No. 86.*
208,200	208,200	.....	Maintenance	Pacific entrance	*Culebra.*
152,200	152,200	.....	Auxiliary	Balboa inner harbor	*Culebra.*
644,550	522,450	122,100			

VITAL STATISTICS.

A total of 144 deaths occurred during the month of August, 1923, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.09 per thousand. The leading causes of death were: tuberculosis, 21; pneumonia, 21; organic diseases of the heart, 13; diarrhea and enteritis, 15; nephritis (acute and chronic), 10. Of the total deaths, 48, or 33⅓ per cent occurred among children under 5 years of age. There were 15 deaths of nonresidents of the Isthmus; these are not included in the above statistics.

There were 286 live births reported during the month, and 18 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 29.78 per 1,000 population. Deaths among children under one year of age numbered 34, giving an infant mortality rate of 111.84 per thousand live births.

The total number of malaria cases reported during the month was 162. Of these, 7 cases were reported from Panama City, 9 from Colon, 117 from the Canal Zone, and 29 originated outside of our sanitated area. Of the total, 20 were employees, 61 nonemployees, and 81 were from the Army and Navy personnel. There were no deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters, shown in comparative form was as follows:

	As of August 31, 1923.			Comparative totals.		
	Men.	Women.	Children.	August, 1923.	August, 1922.	August, 1921.
Americans	2,301	1,644	1,859	5,804	5,667	7,056
Europeans	66	28	71	165	215	231
West Indians	4,114	2,669	6,141	12,924	12,322	13,166
Totals, August, 1923	6,481	4,341	8,071	18,893	.....	.....
Totals, August, 1922	6,288	4,393	7,523	.....	18,204	.....
Totals, August, 1921	8,064	4,629	7,760	.....	.....	20,453

WORKING FORCE.

The following tabulations show the number of gold and silver employees as of August 15, 1923, by departments, together with a comparison of the working force for the preceding month and that of August, 1922:

	As of August 15, 1923.			Total employees.	
	Gold.	Silver.	Total.	August, 1923.	August, 1922.
Operation and Maintenance:					
Office	28	33	61	64	62
Electrical	155	149	304	315	293
Municipal Engineering	69	408	477	554	603
Lock Operation	181	571	752	746	708
Dredging	151	867	1,018	1,016	827
Mechanical	372	696	1,068	1,051	965
Marine	162	561	723	657	516
Fortifications	14	79	93	92	205
Totals	1,132	3,364	4,496	4,495	4,179
Supply Department:					
Quartermaster	141	932	1,073	1,089	1,002
Subsistence	6	81	87	88	81
Commissary	166	776	942	930	915
Cattle Industry plant	6	204	210	192	132
Hotel Washington	7	82	89	91	92
Transportation	33	150	183	189	183
Totals	359	2,225	2,584	2,579	2,405
Accounting Department	189	8	197	193	191
Health Department	222	713	935	916	923
Executive Department	473	208	681	684	666
Totals	884	929	1,813	1,793	1,780

	As of August 15, 1923.			Total employees.	
	Gold.	Silver.	Total.	July, 1923.	August, 1922.
Panama Railroad:					
Superintendent	48	242	290	262	257
Transportation	74	106	180	170	168
Receiving and Forwarding Agency	74	678	752	848	773
Coaling stations	62	514	576	518	709
Totals	258	1,540	1,798	1,798	1,907
Grand totals, August, 1923	2,633	8,058	10,691		
Grand totals, July, 1923	2,596	8,069		10,665	
Grand totals, August, 1922	2,543	7,728			10,271

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month a year ago, were as follows:

	August, 1923.	July, 1923.	August, 1922.
Material received on U. S. requisitions:			
For Department of Operation and Maintenance	$288,039.74	$332,118.29	$209,236.36
For other Canal departments	5,886 69	2,296.06	2,683.25
Totals	293,926.43	335,044.35	211,919.61
Cash sales on Isthmus:			
Stock	19,403.99	19,912.50	31,934.53
Fuel oil	171.18	40.70	388.54
Scrap	1,917.26	605.94	996.86
Obsolete and second-hand material	392,37	1,181.01	1,985.62
Totals	21,884.80	21,740.15	35,315.55

Respectfully,

M. L. WALKER,
Acting Governor.

Notice to Mariners.—Prohibited Anchorage—Cristobal Harbor, C. Z.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 20, 1923.

Vessels are prohibited from anchoring to the eastward of a line between Manzanillo Point and the east end of the East Breakwater.

M. L. WALKER,
Acting Governor.

Notice to Mariners.—Aids to Navigation.

GULF OF PANAMA—WEST COAST OF CENTRAL AMERICA,
THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 19, 1923.

A gas buoy, cylindrical, surmounted by pyramidal latticework structure supporting the lantern, exhibiting a flashing white light of about 200 c. p., focal plane 12 feet, visible 7 miles, to be established on or about September 22, 1923, three-quarters of a mile SSW of Trollope Rock in 7 fathoms of water.

CHARACTERISTICS.

Color of aid—Black and red horizontal stripes.
Light—White, flashing, 1 second light, 1 second dark.
Illuminant—Acetylene gas.
Cocos Point (Rey Island) 112° true (ESE 9/16 mag.).
Gorda Point, 198° 15′ (S. x W. 3/16 mag.).
Garachine Point, 269° 00′ (W. x S. mag.).
Approximate position—Latitude 8° 05′ 45″ N. Longitude 78° 37′ 45″ W.

M. L. WALKER,
Acting Governor.

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs during the week ended September 8:

Steamships *Steelore*, repair telemotor steering gear; furnish diver and equipment to examine hull; *Eastern Gale*, minor repairs to feed-water pump, fresh-water pump, fire-room tools, and cargo-handling gear; repair miscellaneous boiler mountings, valves, etc.; *Cardiganshire*, furnish services of diver and outfit to examine hull; *Tulsagas*, repair steering gear; repair sanitary system; repair circulator engine; *Sudbury*, repair main feed line and examine and repair main-engine condenser; *Gulfstate*, dismantle equipment in wake of repairs to cracked low pressure cylinder; weld cylinder; reassemble all parts and test out; manufacture one new piston rod; *Floating caisson*, dock and undock; perform routine docking repairs and miscellaneous ballast gear alterations; overhaul sea valves and renew bad-order parts of wood fenders; barge *No. 138*, dock and undock; scale and clean underwater body and paint; make miscellaneous repairs to strongbacks, fenders, and dumping gear; test tanks and examine hull and make standard deck alterations to framing and supports; dredge *Paraiso*, dock and undock; scrape and clean bottom; paint and repair sea valves, bad-order fenders and chocks; manufacture and install pontoons.

PREVIOUSLY REPORTED.

Submarines *O–7*, *O–8*, and *O–9*, routine docking repairs; steamship *Colon*, reboilering, general repairs, and reconditioning; Colombian coast guard cutter *No. 3*, general repairs; launch *L–55*, general repairs.

The following vessels were at the Cristobal shops for repairs during the week ended September 24:

Steamship *Ulysses*, remetal one set of crosshead brasses for main engine; make 6 snap rings for H. P. pistons; clean boiler tubes; repair gravity valve in No. 6 topside tanks; repair leaks in divisional bulkheads, starboard topside tanks; scale hatch covers and coamings, etc.; launch *Gargoyle*, rebabbit stern bearing; repair plunger for pump, air jacket around exhaust manifold, sockets for flagstaffs, and copper sheathing on hull; clean out manifold exhaust and water jackets around engine; install ignition points; remove carbon from cylinder heads; grind and reseat valves; renew muffler and sheaves for steering ropes; tighten up engine bed; install rail support and rail; lift boat from water and scrape hull, etc.; steamships *Urubamba*, repair 10 triple blocks; manufacture screws, pins, and nuts for ports, also 6 adapters for tube brushes.

Minor repairs—Steamships *Lancaster* and *Folden Fjord*. Tug *Coco Colo*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 22, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Abangarez	United Fruit Co	September 16.	September 17.	198	185
Leon XIII	Spanish Line	September 16.	September 17.	21	414
Urubamba	Peruvian Line	September 17.		1,588	
Calamares	United Fruit Co	September 18.	September 19.	161	175
San Blas	United Fruit Co	September 18.	September 19.	7	45
Ucayali	Peruvian Line	September 18.	September 19.	1	313
Turrialba	United Fruit Co	September 19.	September 20.	682	
Tivives	United Fruit Co	September 19.	September 20.	1	61
Metapan	United Fruit Co	September 20.	September 21.	203	214
Abangarez	United Fruit Co	September 20.	September 20.	112	4
Corinto	Pacific Mail Steamship Co	September 20.		369	
Balboa	Compania Costanera Colombiana	September 20.	September 21.	183	
Ecuador	Pacific Mail Steamship Co	September 19.	September 20.	446	117
William Green	Pan-American Petroleum Co	September 21.	September 21.	9,775	
Camden	United Fruit Co	September 21.	September 21.	8,975	
Amassia	Hamburg-American Line	September 22.	September 23.	1,186	
Sesostris	Kosmos Line	September 22.	September 23.	35	

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 22, 1922.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Pakeha	15	6.19	16	6.12	16	14.51	16	16.15	British	Shaw, Savill & Albion Co	477.0	63.1	28.0	Middlesbrough	Auckland	General	5,638	10,995	8,173
Hessen	16	10.16	16	12.15	16	19.29	17	1.15	German	Hamburg-American Line	488.0	58.0	23.4	Hamburg	Los Angeles	General	5,088	9,568	6,680
Cecil County [1]	16	21.28	17	6.10	17	14.11	17	15.13	American	Walker & Daly (S. B.)	431.0	59.2	19.8	Fall River	San Pedro	Ballast		8,097	5,330
John D. Rockefeller [1]	17	6.20	17	6.50	17	15.04	17	15.58	American	Standard Oil Co	458.0	60.0	15.0	Curacao	San Pedro	Ballast		8,633	6,314
Tiga [1]	16	23.10	17	8.10	17	16.06	17	21.25	British	British Imperial Oil Co	170.0	31.0	10.3	Kingston	Sydney	Ballast		522	174
Tacoma Maru	17	9.05	17	9.50	17	17.09	17	19.00	Japanese	Osaka Shosen Kaisha	410.0	51.0	21.6	Buenos Aires	Yokohama	General	2,525	6,146	4,241
Leon XIII	16	8.50	17	13.05	17	19.25	17	20.26	Spanish	Spanish Line	410.4	46.1	22.6	Barcelona	Valparaiso	General	398	5,521	3,729
Clemons [2]	...	.....	17	.....	17	14.57	...	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Ballast	.....	2	2
Nora [1]	17	18.44	18	6.15	18	16.00	18	17.11	American	Pan-American Petroleum Co	467.6	62.7	20.0	New York	San Pedro	Ballast	.....	9,918	7,468
Kathlamba	17	22.30	18	7.10	18	16.36	18	18.04	British	Ellerman & Bucknall Line	434.0	54.0	25.6	New York	Brisbane	General	5,935	8,121	6,303
Sciota [3]	....	.....	18	7.25	18	17.10	20	0.55	American	U. S. Navy	155.0	30.0	.....	Cristobal	Balboa	Towing barges	.....	.....	
Robert E. Hopkins [1]	18	20.16	19	6.17	19	13.31	19	14.50	American	Tidewater Oil Co	424.4	58.2	16.0	New York	Los Angeles	Ballast	.....	7,333	5,244
Valdura	19	2.50	19	6.27	19	14.14	19	15.30	British	Gow Harrison & Co	414.3	56.0	17.3	Norfolk	Tocopilla	Ballast	.....	6,101	4,358
Horace Luckenbach	19	4.05	19	7.25	19	14.58	19	19.53	American	Luckenbach Line	445.0	58.0	22.6	Boston	Seattle	General	6,854	8,626	6,290
Putney	19	8.46	19	9.00	19	16.55	19	18.14	British	Watts, Watts & Co	340.0	45.0	23.0	Newport News	Puntarenas	Coal and coke	3,860	3,519	2,588
Steel Engineer	19	9.35	19	9.40	19	17.39	20	0.58	American	U. S. Steel Products Co	425.0	54.0	26.3	New York	San Diego	General, steel	8,358	7,611	5,450
Elder Branch	19	6.46	19	10.07	19	18.05	19	19.17	British	Nautilus Steamship Co	380.3	49.7	22.1	Cardiff	La Libertad	General	2,855	4,951	3,592
Ranella [1]	19	10.10	19	10.45	19	18.32	29	1.55	British	Anglo-Saxon Petroleum Co	405.0	51.0	19.0	Avonmouth	San Francisco	Ballast	.....	5,923	4,089
Ucayali	18	19.10	19	12.55	19	19.22	19	20.25	Peruvian	Peruvian Line	374.7	46.3	18.6	Cartagena	Callao	General, cattle	313	4,166	2,405
Karamea	19	8.20	19	13.47	19	21.05	19	22.18	British	Shaw, Savill & Albion Co	420.0	52.0	26.4	Liverpool	Auckland	General	3,817	7,106	5,073
Ecuador	19	10.35	20	6.10	20	13.54	21	2.30	American	Pacific Mail Steamship Co	380.6	48.7	22.10	New York	San Francisco	General	3,320	5,926	4,178
San Francisco Maru	19	15.23	20	6.15	20	15.05	21	18.12	Japanese	Kabushii Kisen Kaisha	385.0	51.0	14.0	New York	Chile	Ballast	.....	6,245	4,704
Oanfa	19	16.53	20	7.05	20	14.18	20	15.40	British	Alfred Holt & Co	480.0	58.0	25.6	New York	Shanghai	General	4,007	9,347	6,611
Emidio [1]	19	17.25	20	6.58	20	15.39	20	16.40	American	General Petroleum Co	435.0	56.0	21.6	Philadelphia	San Pedro	Ballast	.....	7,433	5,058
Lydia	20	1.15	20	8.16	20	16.03	21	2.26	American	Lydia Steamship Co	366.0	48.2	22.0	Mobile	Seattle	General	4,350	4,620	3,343
Surailco	20	4.15	20	8.25	20	16.52	20	18.17	American	Submarine Boat Corporation	324.0	46.2	22.0	Newark	San Pedro	General	2,500	3,984	2,612
Trelyon	20	2.50	20	8.34	20	16.27	20	18.07	British	Hain Steamship Co	400.0	52.4	22.0	Sydney	Auckland	General	3,275	5,803	4,100
Willfaro	20	8.24	20	9.30	20	17.16	20	21.30	American	Williams Steamship Co	386.8	52.2	23.6	Baltimore	Los Angeles	General	3,500	5,684	4,113
Standard [1]	20	11.05	20	11.20	20	18.25	20	19.56	American	Standard Oil Co	523.0	68.0	21.0	New York	San Pedro	Ballast	.....	12,171	8,673
Texan	20	11.45	20	12.12	20	19.10	20	22.58	American	American-Hawaiian Line	471.0	57.0	17.0	New York	Los Angeles	General	2,920	9,154	6,903
Shreveport [1]	20	8.35	20	12.55	20	20.06	20	21.12	American	Walker & Daly (S. B.)	435.0	56.0	21.4	Fall River	Los Angeles	Ballast	.....	7,411	5,103
Radames	20	15.40	21	6.17	21	13.27	21	14.35	German	Kosmos Line	409.0	50.0	24.0	Hamburg	Corral	General	4,300	4,971	3,486
Agwihavre [1]	20	21.45	21	6.36	21	14.30	21	15.25	American	Atl. Gulf & W. I. S. S. Co	480.5	66.0	21.6	New York	San Pedro	Ballast	.....	9,394	6,305
Agwibay [1]	21	6.25	21	7.30	21	15.27	21	16.45	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	19.0	Baltimore	San Pedro	Ballast	.....	9,776	6,903

[1] Tanker. [2] Launch. [3] Tug.

City of Birmingham	21	6.52	21	8.25	21	15.35	21	16.47	American	Ellerman Line	391.0	54.0	27.2	New York	Auckland	General	8,486		
Balboa	20	11.31	21	9.30	21	16.03	22	0.32	Colombia	Compania Costancia Colombian	190.0	29.1	14.0	Pto. Colombia	Tumaco	General, salt	375	737	335
H. M. Storey [1]	21	7.57	21	10.00	21	16.57	21	18.00	American	Standard Oil Co	500.0	68.2	20.6	Baltimore	Los Angeles	Ballast		11,224	7,849
Sudbury	21	7.06	21	10.55	21	17.57	22	6.58	American	Shawmut Steamship Co	384.8	51.2	24.0	New York	Portland	General	1,701	5,571	4,033
Gulfstate [1]	21	12.32	21	12.40	21	19.21			American	Gulf Refining Co	435.0	56.0	22.0	New Orleans	San Pedro	Ballast		7,643	5,324
Santa Gertrudis	21	15.40	22	6.24	22	13.14	22	17.32	British	San Antonio Steamship Co	238.6	36.6	14.0	Porto Mexico	Guaymas	(4)	768	1,492	835
Shelley	21	17.52	22	7.11	22	14.18	22	15.24	British	Shakespear Steamship Co	399.7	52.8	25.0	Port Arthur	Shanghai	Kerosene	7,073		
Cordelia [1]	21	18.23	22	8.12	22	15.01	23	20.02	British	C. T. Bowring & Co	420.3	54.0	18.6	Hull	San Francisco	Ballast		6,837	5,043
Apple Branch	22	4.05	22	9.15	22	16.05	22	17.30	British	Nautilus Steamship Co	372.0	52.0	20.0	Liverpool	Valparaiso	General	3,200	5,112	3,511
Cerro Ebano [1]	22	4.45	22	10.19	22	17.15	22	18.26	American	Pan-American Petroleum Co	480.5	56.0	21.0	New York	San Pedro	Ballast		9,398	6,453
Mary Eileen			22		22	9.16			American	C. A. Blair				Cristobal	Gatun	Ballast		1	1
Mariposa and Panga			22		22	9.16			American	C. W. Norris				Cristobal	Gatun	Ballast		4	4

[1] Tanker. [4] Case oil and grease.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Colombia	15	6.30	16	6.59	16	14.30	17	12.00	American	Pacific Mail Steamship Co	380.0	48.7	23.6	San Francisco	New York	General	1,920	6,015	4,281
Tustem [1]	15	16.30	16	7.55	16	15.22	16	15.22	American	Atlantic Refining Co	425.0	57.2	27.5	Los Angeles	Philadelphia	Crude oil	10,000	7,204	4,768
Orleans	15	16.00	16	9.00	16	15.42	16	15.42	American	Oriental Navigation Co	395.0	55.0	14.0	Honolulu	New York	Ballast		7,330	5,233
Swiftwind [1]	15	23.00	16	9.05	16	17.04	16	17.53	American	C. D. Mallory	464.6	60.2	27.8	San Pedro	Fall River	Crude oil	12,500	8,473	5,997
S. B. Hunt [1]	16	2.00	16	9.50	16	17.28	16	17.28	American	Standard Oil Co	429.3	59.2	28.0	San Pedro	New York	Crude oil	11,200	7,652	5,522
Sutermco	16	6.00	16	9.58	16	18.05	16	18.05	American	Transmarine Corporation	320.0	46.2	22.3	Bellingham	Newark	Lumber, general	4,300	3,984	2,612
Frances E. Powell [1]	16	7.40	16	10.45	16	18.30	16	18.30	American	Atlantic Refining Co	431.0	59.2	27.0	San Pedro	Philadelphia	(7)	9,500	7,860	5,101
Cape May	16	10.35	16	11.55	16	19.28	16	21.20	American	U. S. & Australia Lines	415.0	53.7	16.6	Adelaide	New York	General	350	7,072	4,944
E. L. Doheny III [1]	16	12.00	16	13.44	16	21.22	16	21.22	American	Pan-American Pet. & Transp. Co	467.6	62.7	29.6	San Pedro	New Orlenas	Crude oil	13,380	9,660	7,034
Josiah Macy [1]	16	14.00	16	15.02	16	22.40	16	22.40	American	Standard Oil Co. of N. J.	419.4	57.2	27.6	San Pedro	New York	Crude oil	9,485	7,197	5,082
Montreal Maru	16	11.45	17	6.46	17	14.10	17	14.10	Japanese	Kawasaki Kisen Kaisha	405.0	53.0	27.0	Iquique	Colon [6]	Nitrate	8,400	7,034	5,081
Urubamba	16	18.20	17	6.58	17	13.35			Peruvian	Peruvian Line	356.2	41.1	17.6	Callao	Cristobal	General	1,587	4,803	2,951
Ballena	17	2.00	17	7.34	17	15.20	17	16.22	British	Pacific Steam Navigation Co	400.0	52.0	25.4	Talcahuano	United King	General	6,775	5,816	4,113
Bendorah	17	6.15	17	7.41	17	16.45	17	18.05	British	Ben Line Steamers, Ltd.	378.0	46.0	24.3	Portland	Hampton R'ds	Wheat	5,414	4,232	3,096
Santa Luisa	17	9.45	17	10.59	17	17.35	17	18.53	American	Grace Line, Inc	360.2	51.6	25.6	Talcahuano	New York	(8)	4,459	5,694	3,975
Antictam [1]	17	10.00	17	11.11	17	18.42	17	18.42	American	Chas. Kerry & Co	435.0	56.2	27.6	San Pedro	New York	Crude oil	10,000	7,426	5,094
Beechpark	17	11.00	17	12.38	17	20.09	17	20.19	British	Andrew Swin & Co	400.4	52.3	24.0	Mejillones	Alexandria	Nitrates	7,500	5,712	4,033
F. H. Hillman [1]	17	8.40	17	13.32	17	21.25	17	21.25	American	Standard Oil Co	500.0	68.2	31.0	San Francisco	London	Gasoline	14,000	11,225	7,913
Agwismith [1]	17	13.00	17	14.11	17	23.00	17	23.00	American	Ward Line	499.9	68.1	28.3	San Pedro	New York	Crude oil	14,800	10,600	7,447
Chickasaw City	17	18.00	18	6.27	18	14.10	18	15.25	American	Isthmian Steamship Lines	395.5	55.0	27.0	San Pedro	Liverpool	General	8,000	6,841	4,686
Acme [1]	18	5.05	18	8.10	18	15.15	18	15.15	American	Standard Transportation Co	435.0	56.0	27.4	San Pedro	Providence	Crude oil	9,374	7,165	4,926
San Gerardo [1]	18	6.40	18	8.48	18	16.55	18	16.55	British	Eagle Oil Transportation Co	530.0	68.4	30.8	San Pedro	Tampico	Crude oil	16,878	13,426	9,342
Foldenfjord	17	17.15	18	9.31	18	17.10	18	17.10	Norwegian	General Petroleum Corporation	430.4	59.3	27.0	San Pedro	London	Benzine	8,600	7,780	5,520
Albert Jeffries	18	8.30	18	11.03	18	18.25	18	18.25	American	Garland Steamship Corporation	384.6	51.0	21.0	Norfolk	Portland	Lumber	4,000	6,347	4,453
Santa Clara	18	8.50	18	11.15	18	17.55	18	17.55	American	Pacific Mail Steamship Co	404.6	53.9	21.0	Seattle	Baltimore	Lumber, general	4,000	6,760	4,450
Asia [5]	18	8.30	18	11.40	18	19.40	18	23.42	Danish	East Asiatic Co	413.0	53.6	29.0	Taltal	Dunkirk	General	9,900	7,396	5,588
Limicana [1]	17	20.30	18	11.55	18	20.30	18	21.20	British	Anglo-Saxon Petroleum Co	381.8	50.5	27.8	San Pedro	Hamburg	Crude oil	7,980	6,109	4,117
CapeHenlopen [1]	18	9.45	19	7.08	19	15.30	19	15.30	American	Pure Oil Co	434.8	56.2	27.0	San Pedro	Bayonne	Crude oil	9,245	7,425	5,202

[1] Tanker. [5] Motor ship. [6] For orders. [7] Gasoline and lubricating oil. [8] Nitrate, copper, borax, cotton, etc.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Rhodopis	18	10.40	18	13.15	18	21.55	19	6.05	German	Kosmos Line	434.5	53.2	25.0	Corral	Hamburg	(9)	6,406	7,525	5,154
Curaca	18	0.16	18	13.46	18	22.35	18	22.35	Panaman	Grace Line, Ltd	403.0	52.4	28.6	Punta Arenas	New York	(10)	8,701	6,804	4,897
Fredensbro	18	15.10	19	6.23	19	14.34	19	15.30	Danish	N. O. & S. A. S. S. Co	302.0	44.2	21.0	Talcahuano	New Orleans	(11)	3,910	2,997	2,113
Kaprino	19	2.10	19	7.58	19	17.10	19	18.20	Norwegian	Carl Wilthagen Steamship Co	306.6	49.0	21.6	Los Vilos	New York	Copper ore	5,037	3,277	2,177
Alaska	19	7.30	19	9.54	19	17.30	19	18.40	French	French Line	425.0	55.0	25.6	San Francisco	La Havre	(12)	7,548	6,990	4,854
Allaguash [1]	19	10.40	19	13.22	19	21.15	20	0.17	American	Foreign Transport & Mer. Co	354.5	50.5	21.9	Seattle	New York	General	5,470	4,727	3,643
Ohioan	19	6.00	19	14.30	19	21.48	19	21.48	American	American-Hawaiian Line	407.7	53.7	23.06	Seattle	Boston	General	6,000	7,112	4,896
Corinto	19	2.59	20	6.21	20	13.28	.....	.....	American	Pacific Mail Steamship Co	261.0	40.8	12.9	San Francisco	Cristobal	(13)	117	2,352	1,549
Tulsagas [1]	17	20.00	20	7.00	20	15.10	20	15.10	American	McAllister Brothers	431.0	59.2	25.4	San Pedro	Fall River	Crude oil	9,400	7,817	5,048
Knight Companion	19	17.00	20	7.30	20	16.25	20	16.25	British	Alfred Holt & Co	470.0	58.0	28.0	San Francisco	London	General	9,287	8,546	6,263
Cape Cod	19	14.35	20	8.13	20	16.50	20	16.50	American	Pure Oil Co	425.8	57.0	27.0	San Pedro	Boyonne	Crude oil	10,210	7,218	4,955
Pennsylvania Sun [1]	19	19.50	20	8.16	20	17.32	20	17.32	American	Sun Oil Co	480.5	66.0	28.0	Los Angeles	New York	Crude oil	12,940	9,325	6,383
Bogstad	20	6.30	20	9.01	20	18.12	20	18.12	Norwegian	Fearnley & Eger	385.1	52.1	26.0	Portland, Ore	Queenstown	Wheat	7,152	5,813	4,288
Calgarolite [1]	20	9.45	20	11.40	20	19.55	20	19.55	British	Imperial Oil Co., Ltd	463.0	60.2	27.6	Talara	Halifax	Crude oil	11,636	8,491	6,091
Andrea F. Luckenbach	20	10.10	20	11.11	20	18.40	20	18.40	American	Luckenbach Line	496.0	68.2	23.0	Portland	Boston	General	6,894	11,487	8,762
Cherry Branch	20	10.15	20	12.44	20	21.55	20	23.35	British	F. & W. Ritson	400.0	51.9	23.8	Taltal	Liverpool	General	6,802	5,403	3,967
Agwimex [1]	20	22.35	21	8.15	21	15.32	21	15.32	American	Ward Line	498.6	65.9	27.5	San Pedro	Baltimore	Crude oil	14,000	9,394	6,306
Peter Kerr	21	2.00	21	8.40	21	16.05	21	16.05	American	Colombia Pacific Shipping Co	415.0	55.7	25.9	Astoria	Montreal	Lumber	6,050	7,704	5,708
San Florentina [1]	21	10.29	21	11.28	21	21.00	21	21.00	British	Anglo-Mexican Petroleum Co	530.0	68.5	31.6	San Pedro	Tampico	Crude oil	17,300	13,067	9,124
Northwestern Miller	20	12.00	21	12.22	21	19.26	21	19.26	British	Furness, Withy & Co	419.8	53.4	26.0	Vancouver	Glasgow	General	7,080	7,138	5,122
Spreewald	21	16.30	22	6.24	22	13.26	22	14.30	German	Hamburg-American Line	399.4	54.2	26.10	Corral	Port of Bilbao	Nitrate of soda	8,000	6,791	4,997
Benrinnes	21	20.20	22	6.58	22	15.10	22	16.25	British	Ben Line Steamers, Ltd	405.0	51.5	.....	San Francisco	Dublin	Barley	6,423	5,097	3,476
Cape Ann [1]	22	1.30	22	10.09	22	18.44	22	18.44	American	Cape Steamship Co	425.8	57.0	27.6	San Pedro	New York	Crude oil	10,314	7,484	5,216
David McKelvy [1]	22	6.00	22	11.25	22	18.50	22	18.50	American	Tidewater Oil Co	430.0	59.2	26.0	San Pedro	New York	Crude oil	11,000	7,629	5,393
Montrolite [1]	22	13.25	22	14.13	22	22.00	22	22.40	American	Imperial Oil Co., Ltd	421.4	57.3	25.0	Talara, Peru	New York	Crude naphtha	8,574	7,378	4,752

[1] Tanker. [9] Nitrate, ores, general. [10] Nitrate, cotton, and sugar. [11] Nitrates, sulphate, and copper. [12] Barley, salmon, and general. [13] Coffee, hides, logs, general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 120, column 2.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 22, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Seiyo Maru	Toyo Kisen Kaisha	September 16.	September 17.	.....	1
Rakuyo Maru	Toyo Kisen Kaisha	September 18.	September 19.	859	.....
Corinto	Pacific Mail Steamship Co	September 19.	September 20.	269	.....
Ecuador	Pacific Mail Steamship Co	September 20.	September 21.	198	.....
Lydia	Lydia Steamship Co	September 20.	September 21.	.....	181

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 26, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Arrive Cristobal.	Leave Cristobal.	Arrive New York.
General W. C. Gorgas	September 15.	September 24.	September 29.	October 7.
Panama	September 25.	October 3.....	October 9.....	October 16.
Cristobal	October 5.....	October 13....	October 19....	October 26.
General W. C. Gorgas	October 15....	October 24....	October 29....	November 6.
Panama	October 25....	November 2 .	November 9..	November 16.
Cristobal	November 5..	November 13.	November 19.	November 26.
General W. C. Gorgas	November 15.	November 24.	November 29.	December 7.
Panama	November 24.	December 3...	December 9...	December 16.
Cristobal	December 5. .	December 13..	December 19..	December 26.
General W. C. Gorgas	December 15..	December 24..	December 29..	January 6.
Panama	December 24..	January 1.....	January 9.....	January 16.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Present number of beds.	Visiting hours.
Section "A"—White American, male:		Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. and 6.30 to 7.30 p. m. Sundays and holidays, 9.30 to 11 a. m. and 2.30 to 4.30 p. m.
Ward No. 1, Medical, Eye and Ear	44	
Ward No. 2, Medical, Eye and Ear	41	
Ward No. 3, Surgical	44	
Ward No. 4, Surgical	41	
Cells (2)	2	
	172	
Section "B":		
White American, female	23	Daily except Sunday, 2 to 4.30 p.m.; 6.30 to 8 p. m Sundays and holidays, 8.30 to 11 a. m.; 2 to 4.30 p. m. 6.30 to 8 p. m.
White foreign, female	15	
Nursery	16	No visitors permitted.
Private rooms (40)	46	Daily, 9.30 to 11 a. m.; 2 to 4.30 p. m.; 6.30 to 8 p. m.
Cells (2)	2	
	102	
Section "C":		
Ward No. 9, White foreign, male	39	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 10, Colored, eye and ear, convalescent medical	39	
Ward No. 11, Colored Acute surgical	39	
Ward No. 12, Colored Acute surgical	39	
Ward No. 13, Colored Convalescent surgical	39	
Ward No. 14, Colored Convalescent surgical	39	
Cells (6)	6	
Rooms (7)	7	
	247	
Section "D":		
Ward No. 15	41	
Ward No. 16	39	
Ward No. 17, Colored children	32	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward No. 18, White children	30	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward No. 19, Colored female medical	41	
Ward No. 20, Colored female surgical	34	Wednesdays, Sundays, and holidays 1.30 to 3 p. m.
Rooms (6)	6	
Cells (6)	6	
	229	
Isolation:		No visitors permitted.
Floor No. 1	14	
Floor No. 2	29	
Floor No. 3	28	
Floor No. 4	28	
	99	
Total number	849	

Emergency passes are issued only by and in the discretion of the section nurse.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.65 per barrel at Cristobal, and $1.50 to $1.75 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Company (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners, forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: 9.10 a. m., 12.15 p. m., 4 p. m.

From Panama: 7 a. m., 12.15 p. m., 6.10 p. m.

The trains leaving at 12.15 p. m. do not run on Sundays and holidays; the others are daily.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 116.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 16	Abangarez	United Fruit Co	New Orleans via Habana.
September 16	Toloa	United Fruit Co	Port Limon.
September 16	El Norte	L. Estenoz	Colon.
September 18	Calamares	United Fruit Co	New York via Habana.
September 18	San Blas	United Fruit Co	Boston via Habana.
September 18	Turrialba	United Fruit Co	New Orleans via Habana.
September 19	Tivives	United Fruit Co	Colombia.
September 20	Abangarez	United Fruit Co	Bocas del Toro.
September 20	Metapan	United Fruit Co	New York via Kingston.
September 20	Camden	United Fruit Co	Tampico.
September 22	Amassia	Hamburg-American Line	Hamburg via wayports.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 16	Toloa	United Fruit Co	New York via Habana.
September 17	Chateau Thierry	U. S. Army	New York.
September 17	Abangarez	United Fruit Co	Bocas del Toro.
September 17	El Norte	L. Estenoz	Colon.
September 18	Vireo [1]	U. S. Navy	High seas.
September 19	San Blas	United Fruit Co	Boston via Limon.
September 19	Cristobal	Panama Railroad Steamship Line	New New via Haiti.
September 19	Calamares	United Fruit Co	Port Limon.
September 20	Tivives	United Fruit Co	New York via Kingston.
September 20	Turrialba	United Fruit Co	New Orleans via wayports.
September 20	Abangarez	United Fruit Co	New Orleans.
September 21	Metapan	United Fruit Co	Colombian ports.
September 22	Camden	United Fruit Co	Bocas del Toro.

PORT OF BALBOA.

[1] Mine sweeper.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 16	Seiyo Maru	Toyo Kisen Kaisha	Valparaiso.
September 18	Rakuyo Maru	Toyo Kisen Kaisha	Hongkong.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 17	Seiyo Maru	Toyo Kisen Kaisha	Hongkong.
September 19	Rakuyo Maru	Toyo Kisen Kaisha	Valparaiso.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., October 3, 1923. No. 8.

Traffic in September.

The number of commercial transits through the Panama Canal during the month of September was 413. In addition to commercial transits, there were 9 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 27 transits of Government vessels on which no tolls were paid, making the total transits for the month 449. The daily average of the commercial transits was 13.77.

Tolls for the month aggregated $1,902,453.61 on the 413 commercial vessels and $18.95 on the 9 launches, making a total of $1,902,472.56, or an average of $63,415.75 per day. The daily average collections on the commercial traffic was $63,415.12.

The detail of the month's traffic, segregated by directions, was as follows:

	Transits.				Tolls.		
	Commercial.	Launches	Government.	Total.	Commercial.	Launches	Total.
Atlantic to Pacific	198	7	15	220	$834,714.72	$17.45	$834,732.17
Pacific to Atlantic	215	2	12	229	1,067,738.89	1.50	1,067,740.39
Totals	413	9	27	449	1,902,453.61	18.95	1,902,472.56

The following tabulations shows the monthly totals, and the daily averages of transits and tolls during the current calendar year, for commercial vessels only:

Month.	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
January	352	$1,505,285.55	11.35	$48.557.60
February	326	1,423,954.21	11.64	50,855.51
March	409	1,827,718.44	13.20	58,958.66
April	404	1,878,938.15	13.47	62,631.27
May	419	1,972,216.04	13.52	63,619.87
June	417	1,898,043.80	13.90	63,268.13
July	474	[1] 2,124,830.02	15.29	68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12

[1] Previous figures for July are increased by $419.70, collected in September under supplemental bill against steamship *Chilore*, transiting on July 26.

The average amount of tolls paid by each commercial vessel transiting the Canal during the month of September, 1923, was $4,606.42.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Dollar Line To Inaugurate Around-the-World Passenger Service.

The United States Shipping Board has announced the sale of 7 combination freight and passenger steamers to the Dollar Line. These vessels will be operated in an around-the-world service, starting twice a month at San Francisco, their home port, and thence to Japan, China, the Philippines, Java, Straits Settlements, Singapore, India, Suez, Mediterranean ports, New York, Panama, and back to San Francisco. The Dollar Line already operates a freight service over this route, but this, according to the Shipping Board's announcement, is the first around-the-world passenger line maintaining continuous service under any flag.

The ships purchased were built by the New York Shipbuilding Co. in 1920 and 1921 and are of 10,533 gross and 6,195 net tons. Five of them are now in service between New York and London, and two in service between the west coast of the United States and the east coast of South America. Other Shipping Board vessels are to be substituted on the routes from which they will be removed.

Delivery of the 7 steamers to the Dollar Line will probably be made in November.

Canadian Intercoastal Trade.

The Canadian intercoastal trade through the Panama Canal has not engaged any considerable tonnage, but efforts are now being made to develop it, and one line with regular sailings between St. Lawrence River and Atlantic ports and British Columbia ports began operations in the summer of 1923. The steamship *Margaret Coughlan*, which inaugurated the new service, passed through the Panama Canal on June 28, bound from Vancouver to Montreal, with 7,400 tons of lumber and canned salmon. The same steamer returned on August 25, bound from Montreal via Sydney, C. B., to Victoria, with 5,000 tons of general cargo, including 6 carloads of pianos, 30,000 cases of canned goods, and 25 carloads of salt. The steamer is scheduled to return to the east coast early in October.

The distance from Montreal to Vancouver via Panama is of course much greater than the distances traversed by vessels in the intercoastal trade of the United States, but, as illustrating the economy of sea carriage, it is reported that the lake and rail tariff on salt from Montreal to Vancouver is 96½ cents, while the all-water rate is only 30 cents.

Repairs to "John D. Archbold" Completed.

Repairs to the Standard Oil Company's tanker *John D. Archbold*, which went ashore on Bona Island in Panama Bay on June 30, were completed at San Francisco on September 15. The ship went into dry dock on July 22, but the actual repair work could not be started until July 30, as it was first necessary to clean the holds. The reconditioning called for the renewal of about 40 per cent of the ship's bottom plating. The contract called for the completion of the work by September 30, but it was finished ahead of time.

The *John D. Archbold* has not passed through the Canal since these repairs were completed, but presumably it will soon be back in the intercoastal trade, if it is not already headed this way with a cargo of oil.

Desertions at Canal Ports.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., September 26, 1923.

MEMORANDUM FOR ALL STEAMSHIP AGENTS:

Letters are occasionally received by the Panama Canal authorities from Masters of vessels or from steamship companies, complaining that members of the crews leave the ships at Canal Zone docks without permission of the Master, thus handicapping the ship's movements due to short crews.

One or two letters complain that liquor has been smuggled aboard ship in Canal waters.

Some of these letters request that the Canal authorities prevent members of crews from leaving ships while at Canal Zone docks.

In connection with liquor smuggling, the Canal authorities will continue an active campaign against such traffic and the cooperation of Masters and ships' officers will be appreciated.

The Canal authorities have given much thought to the question of preventing members of crews from leaving ships while moored to coal or oil docks and have reached the following conclusions:

(1) Judged from correspondence received, the frequency of jumping ship is on the decrease.

(2) Trouble from jumping ship and drunkenness on board generally occurs on a poorly disciplined ship and the remedy is in the hands of ship Masters.

(3) The law places control of the crew in the hands of the Master and gives him authority to punish both drunkenness aboard ship and desertion. The Canal government, therefore, will not consider any shifting of responsibility to Canal officials from the shoulders of ship Masters where such responsibility legally rests.

Please inform your principals immediately of the contents of this memorandum.

A. W. HINDS,
Marine Superintendent.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., September 26, 1923.

Swan Island light will be out of commission until further notice.

M. L. WALKER,
Acting Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending September 29, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ulysses	Panama Railroad Steamship Line	September 23.	September 27.	[1] 12,063	.....
Atenas	United Fruit Co	September 23.	September 24.	207	63
Calamares	United Fruit Co	September 23.	September 23.	16	68
Ebro	Pacific Steam Navigation Co	September 23.	September 24.	50	.....
Drechtdijk	Royal Mail Steam Packet Co	September 23.	September 24.	300	.....
Huasco	Chilean Line	September 24.	September 27.	393	230
Puerto Rico	French Line	September 24.	September 26.	217	.....
Gen. G. W. Goethals	Panama Railroad Steamship Line	September 24.	September 25.	208	.....
Antillian	Leyland Line	September 24.	September 25.	1,040	.....
Kilcredane	Limerick Steamship Co	September 24.	September 27.	5	144
Ansaldo San Giorgio I.	Societa Nazionale di Navigazione	September 25.	September 26.	43	.....
Pastores	United Fruit Co	September 25.	September 26.	311	57
Oroya	Pacific Steam Navigation Co	September 25.	September 25.	13	.....
Crijnssen	Royal Netherlands W. I. Mail	September 25.	September 26.	232	.....
Gen. W. C. Gorgas	Panama Railroad Steamship Line	September 26.	September 29.	3,251	1,389
Suriname	United Fruit Co	September 26.	September 27.	552	120
Sixaola	United Fruit Co	September 26.	September 27.	94	193
Atenas	United Fruit Co	September 26.	September 27.	2	22
Manuel Calvo	Spanish Line	September 26.	September 27.	18	19
Breda	Royal Netherlands W. I. Mail	September 26.	September 27.	190	26
Santa Elisa	Grace Line	September 26.	September 27.	15	23
Essequibo	Pacific Steam Navigation Co	September 27.	September 27.	26	.....
Atrato	Al. Thorp	September 27.	.....	135	.....
Venezuela	La Veloce Line	September 27.	September 28.	23	.....
Laura C. Hall	Pacific Metals Corporation	September 28.	.....	55	.....
Camito	Elders & Fyffes, Ltd	September 29.	September 29.	18	.....

[1] Coal.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 29, 1922.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Indiana	22	18.36	23	6.15	23	14.43	23	15.50	French	French Line	417.0	56.0	20.0	Havre	Vancouver	General	2,639	7,157	4,936
Sesostris	22	19.59	23	6.25	23	15.17	23	16.43	German	Kosmos Line	365.0	50.0	18.5	Hamburg	Champerico	General	929	4,979	3,381
Atlanta City	22	21.05	23	7.15	23	15.59	23	17.03	American	U. S. Steel Products Co	424.2	56.2	25.6	Philadelphia	Singapore	General	8,175	7,611	5,450
Hugoton [1]	22	21.40	23	7.17	23	15.35	23	16.46	American	C. D. Mallory & Co	434.8	56.2	21.0	Baton Rouge	San Pedro	Ballast		7,429	5,175
William Green [1]	21	20.30	23	8.23	23	16.27	23	17.25	American	Pan-American Petroleum Co	430.0	58.2	18.3	New Orleans	San Pedro	Ballast		6,973	4,670
Diana Dollar	23	3.15	23	8.40	23	17.03	23	22.31	American	Dollar Line	429.0	55.0	27.0	Baltimore	Los Angeles	General	9,685	7,582	5,521
Toco [1]	23	5.05	23	9.40	23	17.23	23	20.04	British	Sheridan Steamship Co	440.0	56.0	28.0	Tampico	Tocopilla	Crude oil	9,800	7,693	4,831
Centaurus	23	6.13	23	10.15	23	18.03	23	23.30	American	Planet Line	409.0	54.0	25.1	Baltimore	Los Angeles	General, steel	7,670	6,581	4,795
Marore [1]	23	8.55	23	10.35	23	19.07	24	3.51	American	Ore Steamship Co	550.3	72.2	22.6	Baltimore	Cruz Grande	Ballast		15,551	4,297
Innerton	23	12.10	23	12.30	23	19.34	23	20.37	British	Carlton Steamship Co	399.0	52.0	16.0	Barry	Portland	Ballast		5,740	4,087
Ebro	23	10.42	24	6.12	24	14.00	24	15.22	British	Pacific Steam Navigation Co	450.0	57.0	25.6	New York	Valparaiso	General	1,369	9,151	6,227
Alaskan	23	16.03	24	6.33	24	14.24	24	15.26	American	American-Hawaiian Line	470.1	57.2	22.6	Philadelphia	Los Angeles	General	6,400	9,250	6,816
Canadian Seigneur	24	7.00	24	8.40	24	15.50	24	18.37	British	Canadian Gov't. Mer. Marine	400.6	52.0	21.0	Montreal	Auckland	General	3,800	5,893	4,135
Drechtdyk [2]	23	6.00	24	10.45	24	17.00	24	18.03	Dutch	Holland-American Line	485.1	62.0	24.7	Rotterdam	Los Angeles	General	5,640	10,793	7,619
Argon	23	23.40	24	7.25	24	15.02	24	16.04	American	Standard Transportation Co	435.6	56.2	19.6	Baltimore	San Pedro	Ballast		7,386	5,183
Dorset	24	2.40	24	10.58	24	18.35	24	16.04	British	Federal Steam Navigation Co	460.0	58.0	26.5	Middlesboro	Auckland	General	3,589	9,188	6,581
Kilcredane	24	6.50	24	12.30	24	19.42	24	20.50	British	Limerick Steamship Co	400.3	52.0	27.10	New York	Manila	General	7,000	6,377	4,564
Ruby [3]	22	.....	24	.....	24	12.35	.....	.....	American	E. J. Hooper	.....	.....	.....	Cristobal	Gatun Lake	Ballast		1	1
Clemons [3]	20	.....	24	.....	24	14.27	.....	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Ballast		2	2
W. C. Teagle [1]	24	6.33	25	6.36	25	13.57	25	15.05	American	Standard Oil Co	499.1	68.2	23.0	Baltimore	San Pedro	Ballast		10,991	7,986
Wabash	25	7.50	25	8.03	25	15.33	25	16.49	American	Nawsco Line	381.0	49.9	26.0	Boston	Seattle	Coal and general	4,718	5,825	4,152
Hofuku Maru	25	10.08	25	10.25	25	17.49	26	8.16	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	22.0	Baltimore	San Antonio	Coke	5,307	6,212	4,710
W. E. Hutton [1]	25	11.10	25	11.25	25	18.06	25	19.03	American	Pure Oil Steamship Co	435.0	56.0	23.0	New York	San Pedro	Ballast		7,481	5,120
Dominion Miller [2]	25	12.30	25	12.45	25	18.50	25	20.01	British	Furness Withy & Co	420.0	54.0	21.4	Hull	Vancouver	General	5,500	6,996	5,306
Hoxbar [1]	25	3.25	25	13.10	25	20.16	30	12.33	American	McAllister Bros. (S. B.)	434.8	56.2	19.3	New York	San Pedro	Ballast		7,421	5,174
Arantza Mendi [2]	25	13.37	25	13.40	25	21.00	26	2.22	Spanish	Soto & Aznar	345.0	48.0	13.0	Barcelona	Guayaquil	Ballast		4,934	3,451
Paul Luckenbach	25	16.25	26	6.23	26	13.49	26	14.57	American	Luckenbach Line	472.0	59.0	21.0	New York	Los Angeles	General	6,000	9,027	6,539
A. S. Giorgio I [2]	25	17.12	26	6.51	26	14.47	27	0.05	Italian	Societe Nazionale di Navigazione	362.9	47.8	15.6	Genoa	Valparaiso	General	1,013	5,657	3,974
Sidney M. Hauptman	26	6.00	26	8.28	26	15.34	26	19.50	American	Munson McCormick Line	401.0	53.2	18.6	Baltimore	Seattle	General	2,600	7,082	5,167
Chilore [1]	26	6.23	26	9.35	26	17.22	27	11.58	American	Ore Steamship Co	550.0	72.0	20.0	Baltimore	Cruz Grande	Ballast		14,538	9,348
Agwistone [1]	26	12.14	26	12.25	26	19.24	27	2.05	American	Atl. Gulf & W. I. S. S. Co	499.9	68.1	20.0	New York	San Pedro	Ballast		10,600	7,526
Santa Elisa	26	17.22	27	6.22	27	12.58	27	15.10	American	Grace Line	360.3	51.7	23.10	New York	Talcahuano	General	2,055	5,957	4,325
Hesperos	26	21.30	27	7.30	27	15.22	27	16.28	Norwegian	Bruusgaard Kiosterud & Co	389.8	54.1	14.0	Philadelphia	San Antonio	Explosives	505½	5,693	4,230
Huasco	24	12.57	27	9.07	27	16.04	27	17.10	Chilean	Chilean Line	380.0	44.0	22.5	Cristobal	Valparaiso	General	219	4,552	3,182

[1] Tanker. [2] Motor ship. [3] Launch.

Breda	26	18.30	27	11.57	27	18.27	28	13.17	Dutch	Royal Netherlands W. I. Mail	402.6	58.0	24.6	London	Corral	(6)	6,050	7,384	5,226
Urubamba	17	13.35	27	12.27	27	19.51	27	21.09	Peruvian	Peruvian Line	381.0	41.1	18.6	Cristobal	Guayaquil	General	446	4,803	2,951
Rochester [4]	27	0.35	28	6.00	28	13.41	...	...	American	U. S. Navy	384.0	64.0	27.10	Curacao	Balboa	Ballast	...	...	...
S. M. Spalding [1]	27	16.15	28	6.35	28	14.30	28	15.18	American	Pan-American Petroleum Co	435.0	56.0	19.0	Portland	San Pedro	Ballast	...	7,331	5,111
Chincha	27	16.48	28	7.10	28	15.30	28	19.38	American	Planet Steamship Line	403.0	52.3	29.0	Baltimore	San Francisco	General, steel	8,899	6,872	4,973
Virginian	27	18.42	28	7.20	28	15.32	28	16.22	American	American-Hawaiian Line	491.5	58.2	20.0	Boston	Portland	General	3,000	10,491	7,546
Algonquin [1]	28	0.24	28	8.28	28	16.12	28	17.45	American	Standard Transportation Co	435.0	56.0	16.9	Providence	San Pedro	Ballast	...	7,602	5,337
Sujerseyco	27	19.45	28	8.30	28	18.20	28	19.35	American	Transmarine Corporation	324.0	46.2	22.0	Newark	Tacoma	General	3,600	3,984	2,612
Henry D. Whiton	28	2.35	28	9.25	28	16.44	28	21.54	American	Union Sulphur Co	356.0	51.6	25.0	Sabine	San Pedro	Sulphur	6,500	5,367	2,925
Tenbergen	28	5.10	28	10.07	28	17.15	28	19.38	Dutch	Furness, Withy & Co	385.0	50.0	15.9	Baltimore	Portland	Ballast	...	...	...
Loreto [5]	28	7.30	28	12.14	28	19.24	29	5.00	British	Pacific Steam Navigation Co	405.0	54.0	24.0	Hull	Corral	General	7,195	7,334	6,586
Acajutla	14	17.30	28	13.00	28	20.45	29	0.14	British	Pacific Steam Navigation Co	215.7	33.5	17.4	Cristobal	Champerico	General	1,271	1,273	706
Wolsum	28	21.45	29	6.40	29	13.40	29	17.53	Dutch	Vinke & Co	359.9	48.3	21.0	Cardiff	San Francisco	Coal	5,581	4,742	3,524
Utacarbon [1]	29	0.55	29	7.40	29	15.00	29	17.16	American	Union Oil Co	435.0	56.0	18.0	Baltimore	Los Angeles	Ballast	...	7,481	5,195
Oreus	28	20.10	29	8.10	29	15.45	29	16.58	American	Wessel Duval & Co. (S. B.)	380.0	53.0	12.8	New York	Talcahuano	General	718	5,667	4,227
Delaware Sun [1]	29	10.23	29	10.40	29	17.14	29	21.51	American	Sun Oil Co	480.5	66.0	22.8	Philadelphia	San Pedro	Ballast	...	9,402	6,586
Santa Olivia	29	3.30	29	11.42	29	17.50	29	20.46	American	Grace Line	404.6	53.9	20.4	Baltimore	San Francisco	General and steel	3,638	6,779	4,921
Santa Tecla	29	4.40	29	11.53	29	18.58	30	0.15	American	Grace Line	298.6	40.0	16.8	New York	Pto. Chicama	General	1,659	2,832	1,803

[1] Tanker. [4] Cruiser. [5] Motor ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[6] Iron, cement, and general.

G. Harrison Smith [1]	22	20.40	23	6.40	23	15.58	23	15.58	British	International Petroleum Co	550.2	72.3	33.0	Cruz Grande	New York	Ore	20,000	15,476	11,102
Steel Exporter	23	0.15	23	7.48	23	16.10	23	16.10	American	Isthmian Steamship Line	424.2	56.2	22.0	Vancouver	New York	Lumber, general	6,058	7,611	5,450
Elisha Walker [1]	23	1.50	23	8.08	23	16.40	23	16.40	American	Pan-American Pet. & Transp. Co	429.3	59.2	27.6	San Pedro	New Orleans	Crude oil	11,430	7,978	5,971
Lancaster	23	3.00	23	8.30	23	17.05	24	16.55	American	Argonaut Steamship Lines	434.3	57.7	24.0	Everett	Baltimore	General	6,190	7,943	5,872
Tiberton	23	9.30	23	10.27	23	18.10	23	18.10	American	R. Chapman & Sons	400.0	52.4	25.6	Portland	Queenstown [7]	Wheat	7,591	5,699	4,126
Circinus	23	7.00	23	11.26	23	19.19	23	19.19	American	Planet Line	410.0	54.2	22.6	Victoria	New York	Lumber, shingles	5,692	6,585	4,791
Huasco	23	14.00	24	6.34	24	12.57	27	9.07	Chilean	Chilean Line	380.0	44.0	19.6	Talcahuano	Cristobal	General	388	4,552	3,182
San Zeferino [1]	23	15.09	24	6.55	24	15.24	24	15.24	British	Anglo-Mexican Petroleum Co	420.1	54.6	26.0	San Pedro	Tampico	Crude oil	8,714	6,636	4,408
Pear Branch	24	1.00	24	7.40	24	16.30	24	21.10	British	Nautilus Steamship Co	398.6	53.9	22.6	Valparaiso	Liverpool	General, nitrate	6,100	5,760	3,866
Wm. Boyce Thompson [1]	24	1.30	24	7.49	24	16.45	24	16.45	American	Sinclair Navigation Co	430.3	59.3	27.6	San Pedro	Baltimore	Crude oil	10,772	7,780	5,562
Dillwyn [1]	24	2.30	24	8.30	24	17.52	24	17.52	American	C. D. Mallory & Co., Inc	435.0	56.0	29.0	San Pedro	New York	Crude oil	9,000	7,441	5,180
Gen. Geo. W. Goethals	23	16.00	24	9.15	24	17.15	25	20.05	American	Panama Railroad Steamship Line	353.0	48.7	20.0	Guayaquil	New York	(8)	1,065	5,226	3,617
Santa Rosalia	24	20.15	25	6.36	25	14.52	25	16.10	American	U. S. Steel Products Co	406.0	52.6	24.6	Tocopilla	Colon [7]	Nitrates	8,000	5,900	4,443
Sunoil [1]	24	20.45	25	7.45	25	17.08	25	17.08	American	Sun Oil Co	430.0	58.2	27.6	Los Angeles	Chester	Crude oil	10,822	7,439	5,209
Oroya	25	.43	25	8.54	25	18.10	26	4.04	British	Pacific Steam Navigation Co	525.3	62.8	27.4	Valparaiso	Liverpool	General	7,491	13,133	9,064
A. C. Bedford [1]	25	6.30	25	9.35	25	18.25	25	18.25	American	Standard Oil Co. of N. J.	500.0	68.0	29.6	San Pedro	New York	Crude oil	15,700	10,896	7,688
Livingstone Roe [1]	25	16.00	26	6.34	26	14.20	26	14.20	American	Standard Oil Co. of N. J.	462.4	60.2	27.0	San Pedro	New York	Crude oil	12,000	8,491	6,065
Samuel Q. Brown [1]	25	16.45	26	6.54	26	15.28	26	15.28	American	Tidewater Oil Co	424.4	58.2	26.6	San Pedro	Fall River	Crude oil	10,000	7,333	5,246
Lio [1]	25	21.15	26	7.25	26	15.55	26	15.55	American	McAllister Bros. (S. B.)	431.0	59.2	26.5	San Pedro	Marques Hook	Gasoline	9,500	7,862	5,177
Manuel Calvo	26	0.30	26	8.26	26	16.40	...	...	Spanish	Cia. Trasatlantica	421.8	48.9	19.6	Valparaiso	Barcelona	(9)	97	5,996	3,897

[1] Tanker. [7] For orders. [8] Hides, coffee, cocoa, tagua, hats, gold. [9] Coffee, cocoa, hides, leather, wood.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
City of Newcastle	26	2.00	26	8.57	26	17.08	26	17.08	British	Norton Lilly Co	455.5	56.4	28.0	San Francisco	Havre, London	General	9,710	8,319	6,288
Huguenot [1]	26	2.54	26	9.20	26	18.45	26	22.40	American	McAllister Bros. (S. B.)	434.8	56.2	26.6	Los Angeles	New York	Crude oil	10,000	7,394	5,099
Saint Jean	26	5.00	26	9.42	26	20.12	26	23.54	French	French Line	396.8	50.1	26.6	Valparaiso	Bordeaux	[10]	7,070	5,849	4,081
Mundelta	26	6.40	26	10.20	26	18.12	26	18.12	American	Mundelta Steamship Line	370.0	53.2	23.0	Raymond	Baltimore	Lumber, general	5,900	5,668	4,297
J. C. Donnell [1]	26	8.45	26	10.43	26	19.46	26	19.46	American	Atlantic Refining Co	500.0	68.2	28.0	San Pedro	Philadelphia	Crude oil	15,768	10,435	7,900
Vinita	26	10.40	26	11.38	26	20.45	26	22.45	American	Sudden & Christiansen	410.5	54.3	23.0	Aberdeen	St. Johns, N.B.	Lumber, general	6,000	6,572	4,910
Ipswich	26	12.25	27	6.45	27	13.45	27	13.45	American	American-Hawaiian Line	400.7	54.2	23.6	Seattle	New York	Lumber	5,943	6,616	4,614
Munwood	26	18.00	27	6.52	27	15.20	27	15.20	American	Munson Line	345.0	48.0	19.6	Guayamas	Chester, Pa.	Dyewood, cedar	2,850	3,794	2,486
Essequibo	27	3.30	27	8.13	27	16.25	28	1.00	British	Pacific Steam Navigation Co	449.5	57.8	24.0	Valparaiso	New York	[11]	3,420	9,099	6,117
Charles H. Cramp	26	22.45	27	12.16	27	19.00	27	19.00	American	Argonaut Steamship Co	404.6	53.9	24.6	San Pedro	New York	Lumber, general	4,504	6,755	4,750
Venezuela	27	12.00	27	13.00	27	20.30	28	16.55	Italian	La Veloce Line	430.0	51.6	24.0	Valparaiso	Genoa	General	3,500	7,622	5,051
Dorothy Luckenbach	27	12.15	27	13.29	27	21.35	27	21.35	American	Luckenbach Line	448.9	60.2	26.6	Portland	New York	Lumber, general	5,830	9,294	6,861
Manavi	27	13.30	27	15.05	27	23.00	.....	.....	British	Pacific Steam Navigation Co	216.0	35.1	13.6	Guayaquil	Cristobal	General	447	1,357	884
Dixie Arrow [1]	27	14.00	27	15.14	27	23.55	27	23.55	American	Standard Transportation Co	485.0	62.5	28.0	San Pedro	Providence	Crude oil	12,000	9,744	7,140
Tex [12]	.....	.....	27	6.48	27	11.15	.....	.....	American	P. Campagnani	.....	.....	.....	Balboa	Gamboa	Ballast	.....	1	1
Cederic	27	15.45	28	6.30	28	13.40	28	14.40	Norwegian	Det. Selmers Rederi	338.5	48.0	19.0	San Antonio	Baltimore	Copper	3,250	4,113	3,071
W. F. Burdell [1]	27	15.24	28	6.45	28	14.25	28	14.25	American	Pure Oil Steamship Co	435.0	56.0	27.0	San Pedro	Philadelphia	Crude oil	10,686	7,433	5,093
Suboatco	28	4.00	28	7.52	28	16.05	28	16.05	American	Transmarine Corporation	324.0	46.2	23.0	San Francisco	New York	[13]	4,000	3,984	2,612
Minnesotan	27	22.10	28	11.29	28	18.30	28	18.30	American	American-Hawaiian Line	407.7	53.7	21.0	Tacoma	Boston	General	4,000	7,150	4,913
Halsey [1]	24	19.45	28	12.28	28	20.55	28	20.55	American	C. D. Mallory & Co	435.0	56.0	27.8	San Pedro	New York	Crude oil	10,524	7,642	5,324
J. A. Bostwick [1]	28	14.55	29	6.21	29	14.15	29	14.15	American	Standard Oil Co. of N. J.	465.2	60.0	28.0	San Pedro	New York	Crude oil	11,500	8,511	5,981
Laura C. Hall	28	14.55	29	6.25	29	15.35	1	6.13	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	[14]	55½	132	72
J.M. Danziger [1]	28	22.20	29	7.26	29	15.25	29	15.25	American	Pan-American Pet. & Transp. Co	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	10,000	6,963	4,886
Cerro Azul [1]	28	24.00	29	8.07	29	16.22	29	16.22	American	Pan-Amer. Pet. & Transp. Co	480.6	66.0	27.6	San Pedro	New Orleans	Crude oil	13,000	9,398	6,453
Nebraskan	29	9.00	29	9.46	29	17.45	29	17.45	American	American-Hawaiian Line	386.6	55.2	25.6	Portland	Philadelphia	[15]	437	5,707	3,643
Byron D. Benson [1]	29	5.30	29	10.40	30	18.40	30	18.40	American	Tidewater Oil Co	465.4	60.2	27.0	San Pedro	New York	Crude oil	12,000	8,546	6,095

[1] Tanker. [10] Nitrate, cotton, coffee. [11] Copper, nitrates, sugar, cotton. [12] Launch. [13] Coffee, lumber, and general. [14] Platinum and coffee. [15] Lumber, canned goods, and general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 23	Ulysses [16]	Panama Railroad Steamship Line	Norfolk.
September 23	Calamares	United Fruit Co	Port Limon.
September 23	Atenas	United Fruit Co	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 23	Calamares	United Fruit Co	New York via Habana.
September 23	Amassia	Hamburg-American Line	Port Limon.
September 24	Atenas	United Fruit Co	Bocas del Toro.

[16] Collier.

* Other than ships passing through the Canal.

(Continued on page 128, column 2.)

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended October 1:

Steamships *Manavi*, reface intermediate stop valve and seat also two auxiliary feed-check valves; repair Weir's pump, sanitary pipes, steam gauge, and water can; manufacture air chamber for pump and two oil cups; renew angle-iron guides for after gangway doors, etc.; *General W. C. Gorgas*, repair eccentric rod for dynamo engine, broken rail at hatch, lifting gear in skylight, fire tools, and chisels; renew copper bilge pipe in engine room and coaling door; forge and machine new valve stem; manufacture new levers for ballast pump, 3 single and 3 double links for cargo blocks; rivet patch on strongback, etc.; *Breda*, forge and machine new clutch arm for anchor windlass; braze copper pipe for ice machine; *Jason*, renew valve chest for bilge pump and repair two steam pipes.

Minor repairs—Steamships *Suriname*, *Manuel Calvo*, *Virginian*, *General G. W. Goethals*, and tug *Coco Solo*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending September 29, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Huasco	Chilean Line	September 23.	September 24.	191	.....
Gen. G. W. Goethals	Panama Railroad Steamship Line	September 23.	September 24.	.....	11
Lompoc	C. T. Bowring & Co	September 27.	September 29.	9,300	.....
Manavi	Pacific Steam Navigation Co	September 27.	September 27.	5	.....
Breda	Dutch Line	September 27.	September 28.	129	.....
Laura C. Hall	Pacific Metals Corporation	September 28.	September 29.	11	.....

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 26, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Circular.

Public Vehicle Operators Not to Leave Vehicles.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 1, 1923.

To all concerned—Public vehicle operators shall not leave their vehicles for the purpose of soliciting patronage at any time; nor shall they do so while parked in any public parking space.

Paragraph (*d*) of Section VIII, page 29, of the "Vehicle and Traffic Laws and Regulations in Force in the Canal Zone," published as a pamphlet on August 15, 1921, is amended accordingly.

M. L. WALKER,
Acting Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 126.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 23	Antillian	Leyland Line	Liverpool via wayports.
September 24	Puerto Rico	French Line	St. Nazaire via wayports.
September 25	San Gil	United Fruit Co.	Boston via Gabana.
September 25	Pastores	United Fruit Co.	New York via Habana.
September 25	Cryssen	Royal Netherlands W. I. Mail	Amsterdam via wayports.
September 26	Suriname	United Fruit Co.	New Orleans via Habana.
September 26	Sixaola	United Fruit Co.	New York via Kingston.
September 26	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
September 27	Atenas	United Fruit Co.	Bocas del Toro.
September 28	Cryssen	Royal Netherlands W. I. Mail	Port Limon, C. R.
September 29	Camito	Elders & Fyffes, Ltd.	Port Limon, C. R.
September 29	Zacapa	United Fruit Co.	New Orleans via Habana.
September 26	Guardian	All-America Cable Co.	San Juan del Sur.
September 27	Raimon	Roland Steamship Line	Punta Arenas.
September 27	Lompoc	Union Oil Co. of California	Port San Luis.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 25	Antillian	Leyland Line	Jacksonville.
September 26	Cryssen	Royal Netherlands W. I. Mail	Port Limon.
September 26	Pastores	United Fruit Co.	Port Limon.
September 26	Puerto Rico	French Line	St. Nazaire via wayports.
September 27	Ulysses	Panama Railroad Steamship Line	Norfolk.
September 27	Sixaola	United Fruit Co.	Colombian ports.
September 27	Suriname	United Fruit Co.	New Orleans via wayports.
September 27	San Gil	United Fruit Co.	Boston via Port Limon.
September 27	Atenas	United Fruit Co.	New Orleans.
September 29	Camito	Elders & Fyffes, Ltd.	Bristol via Kingston.
September 29	Cryssen	Royal Netherlands W. I. Mail	Amsterdam via wayports.
September 29	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.

PORT OF BALBOA.

September 28	Guardian	All-America Cable Co.	Callao.
September 28	Raimon	Roland Steamship Line	Callao.
September 29	Lompoc	Union Oil Co. of California	Port San Luis.

*Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., October 10, 1923. No. 9.

Tanker Traffic Through the Panama Canal in September, 1923.

The number of tankships transiting the Canal during the month of September, 1923, was 159. This is 14 less than the 173 during the month of August, 1923, and 12 less than during the month of July, 171. Tankers comprised about 38 per cent of the total number of vessels through the Canal in September and about 45 per cent of the net tonnage and the cargo carried. The tons of cargo carried through the Canal by tankers in September exceeded by 68,653 tons the quantity in August, 1923, and were 95,804 more than in July, 1923.

The following tabulation shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during September, segregated by nationality of vessels and direction of transit:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific:				
United States	62	370,028	$272,070.57	21,477
British	8	33,522	28,056.68	19,546
Totals, September, 1923	70	403,550	300,127.25	41,023
Totals, August, 1923	95	558,087	414,114.74	68,148
Totals, July, 1923	87	501,537	374,940.25	13,366
Pacific to Atlantic:				
United States	76	448,083	466,906.25	866,208
British	12	68,350	70,791.03	107,489
Norwegian	1	5,520	6,546.25	8,600
Totals, September, 1923	89	521,953	544,243.53	982,297
Totals, August, 1923	78	471,268	493,727.78	886,519
Totals, July, 1923	84	498,730	513,172.70	914,150

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Tankships routed to Los Angeles:				
September, 1923	57	341,605	$247,448.41	.....
August, 1923	81	482,677	348,840.65	.....
July, 1923	78	454,187	331,489.32	830
Tankships routed from Los Angeles:				
September, 1923	82	481,630	504,616.25	926,479
August, 1923	70	361,388	380,780.17	720,084
July, 1923	72	429,458	443,001.15	828,728

Origin and Destination of Cargo Passing Through the Panama Canal During the Fiscal Year 1923.

In tables 1 and 2 published on pages 132 and 133 of this issue will be found a statement of the origin and destination of all cargo passing through the Canal during the fiscal year ended June 30, 1923. These tables supplement the information relative to the movement of cargo in the tables of traffic by trade routes which were published in THE PANAMA CANAL RECORD of August 22, 1923.

CARGO FROM ATLANTIC TO PACIFIC—ORIGIN.

It will be noted that 71 per cent of all cargo passing through the Canal from Atlantic to Pacific in 1923, originated on the east coast of the United States, and 20.7 per cent in the United Kingdom and Europe, and that shipments through the Canal from these areas showed a relative as well as an actual increase over the previous years. The cargo tonnage from the east coast of the United States increased by 1,257,684 tons, that from the British Isles by 251,702 tons, and that from the continent of Europe by 249,496 tons. There was also an increase of 67,765 tons in shipments from eastern Canada. In the Mexican oil trade there was a decrease of 148,606 tons.

CARGO FROM ATLANTIC TO PACIFIC—DESTINATION.

When segregated according to destination, it will be seen that 45.3 per cent of all cargo moving from Atlantic to Pacific was consigned to the west coast of the United States, 20.7 per cent to the Far East, 15.1 per cent to the west coast of South America, and 13.6 per cent to Australasia. The increase in cargo consigned to the west coast of the United States totaled 1,529,205 tons; to the west coast of South America, 248,728 tons; to Australasia 264,199 tons. Cargo to the Far East showed a decrease of 420,358 tons, and the statistics as compiled indicate a decrease of 46,717 tons in cargo consigned to the west coast of Canada, but there is a probability of error in this item resulting from the difficulty of distinguishing accurately on the basis of the original cargo declarations between shipments to Canadian and United States ports. It will be noted that 105,521 tons of cargo of doubtful or unascertained destination is listed this year under the inclusive heading: "West Coast of North America."

CARGO FROM PACIFIC TO ATLANTIC—ORIGIN.

Of cargo moving from Pacific to Atlantic during the fiscal year 1923, 59.7 per cent originated on the west coast of the United States, 26.6 per cent on the west coast of South America, and 4.8 per cent on the west coast of Canada. Due in large part to shipments of California crude oil and in lesser degree to the rapid development of the United States intercoastal trade in general, cargo from the west coast of the United States registered the extraordinary increase of 4,587,763 tons. Cargo from the west coast of South America increased by 1,989,659 tons, and cargo from the west coast of Canada by 423,565 tons. There was a decrease of 89,470 tons in cargo from Hawaii, accounted for by the fact that the entire Hawaiian sugar crop was refined last year in California and there were no shipments to eastern refineries. Cargo from Australasia also showed a decrease, amounting to 41,338 tons.

CARGO FROM PACIFIC TO ATLANTIC—DESTINATION.

Segregated according to destination, 64.5 per cent of the cargo moving from Pacific to Atlantic was consigned to the eastern and Gulf sea-

board of the United States, and 28.2 per cent to the United Kingdom and Europe. Cargo to the east coast of the United States showed an increase of 5,758,211 tons, cargo to the continent of Europe an increase of 691,371 tons, and cargo to the east coast of Canada an increase of 118,762 tons. Cargo to the British Isles showed a decrease of 48,743 tons.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify a little more than 70 per cent of the total cargo in transit through the Canal from Atlantic to Pacific. The remaining 30 per cent consisted for the most part of manufactured articles in small lots reported as "general cargo."

Westbound commodities which aggregated more than 100,000 tons in either the fiscal year 1923 or the fiscal year 1922 are listed in the following tabulation:

Commodity.	Fiscal year, 1923.	Fiscal year, 1922.
Cement	113,726	48,301
Coal and coke	280,343	404,389
Cotton	122,728	198,684
Manufactured goods:		
Iron and steel	1,499,842	1,068,361
Machinery	153,031	88,731
Railroad material	173,259	139,428
Textiles and other	193,458	106,891
Metals, various	270,703	165,104
Oils, various	1,065,184	988,829
Sulphur	117,084	100,449
Sugar	38,635	155,409

The above 11 commodity groups make up approximately 57 per cent of the total cargo carried west bound through the Canal during the fiscal year 1923. It will be noted that all items excepting coal and coke, cotton and sugar, show substantial increases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify approximately 97 per cent of all cargo moving from Pacific to Atlantic during the fiscal year 1923. Commodities which aggregated more than 100,000 tons either in that or the previous year are listed below:

Commodity.	Fiscal year, 1923.	Fiscal year, 1922.
Barley	379,542	418,234
Canned goods (fish, fruit, vegetables, etc.)	489,461	344,621
Lumber	1,539,340	720,622
Metals, various	347,715	179,582
Nitrate	1,664,751	470,796
Oils, various	4,388,909	296,394
Ores, various	712,681	156,136
Sugar	296,471	257,967
Wheat	816,392	804,736
Wool	106,111	148,103
Flour	66,833	130,217
Food products in cold storage	106,058	193,586

The above 12 commodity groups comprise approximately 90 per cent of the cargo moving from Pacific to Atlantic during the fiscal year 1923. It will be noted that all items excepting flour, wool and food products in cold storage show substantial increases.

A detailed list of all commodities in transit through the Canal in both directions, classified according to origin and destination, will be found in tables 3 and 4 on pages 134–138 and 139–143.

Table I.—Origin and Destination of all Commercial Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, Fiscal Year 1923.

(Figures represent tons of 2,240 pounds.)

	From—									To—										
	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	North America, west coast.[1]	Hawaii.	Miscellaneous
1922.																				
July	6,314	212	8,388	42,097	8,532	26,076	60,207	390,586	542,412	78,622	200,938	175,853	52,177	12,629	3,773	6,058	380	8,477	3,505	.....
August	.....	11,797	10,228	42,800	6,563	37,485	80,067	367,821	556,761	122,111	214,929	139,821	70,194	883	3,161	.....	90	1,675	3,897	.....
September	40	8,853	3,782	7,823	6,035	50,360	45,163	344,780	467,836	56,081	219,263	118,580	64,937	782	1,803	42	1,225	11,720	2,403	.....
October	3,218	8,559	11,490	33,885	6,656	48,938	98,984	353,354	565,075	112,284	219,216	110,518	86,316	4,909	3,541	.....	749	22,702	4,837	.....
November	375	4,655	2,060	22,005	7,264	51,140	74,547	339,332	501,378	84,285	215,785	97,232	69,165	1,003	3,984	3,795	600	6,340	4,308	5,831
December	6,000	8,827	9,385	9,443	6,898	34,678	55,636	429,551	560,418	82,687	281,598	90,791	78,675	8,159	5,681	4,975	.....	.....	5,039	2,813
1923.																				
January	2,914	8,236	6,882	20,427	8,362	61,935	105,117	384,870	598,743	100,462	288,612	87,398	75,253	20,395	9,107	7,044	.....	8,417	2,055	.....
February	.....	1,230	5,500	21,466	7,378	55,925	65,636	406,301	563,439	72,087	303,742	86,447	80,772	854	4,560	9	.....	13,049	1,919	.....
March	3,000	8,238	16,467	14,045	8,321	59,729	84,515	484,173	678,488	86,862	288,424	146,167	114,735	5,222	8,144	5,014	421	13,400	10,099	.....
April	7,592	13,986	4,209	34,033	9,303	47,328	66,152	470,766	653,369	98,893	283,117	134,528	92,547	9,819	4,775	10,060	293	15,781	3,536	.....
May	6,576	6,317	2,998	18,318	5,102	55,612	77,407	570,021	742,351	83,285	368,520	162,475	91,562	16,770	6,072	496	37	3,960	8,092	1,082
June	567	1,483	11,550	20,220	9,061	45,478	80,063	487,567	655,989	85,458	326,970	120,161	86,318	11,083	4,123	8,380	3,538	.....	6,370	3,588
Fiscal year 1923	36,596	82,384	92,939	286,562	89,475	574,684	394,491	5,029,125	7,086,255	1,063,107	3,202,114	1,469,971	962,651	101,588	58,727	45,873	7,333	105,521	56,060	13,314
Fiscal year 1922	157,064	51,435	25,174	435,168	84,672	325,188	642,792	3,771,441	5,495,934	814,379	1,672,909	1,890,329	698,452	148,305	51,975	128,115	.....	.....	71,065	20,405
Per cent of total cargo:																				
1923	0.5	1.2	1.3	4.0	1.3	8.1	12.6	71.0	100.0	15.1	45.3	20.7	13.6	1.4	0.7	0.6	0.1	1.5	0.8	0.2
1922	2.9	1.0	0.5	7.9	1.5	5.9	11.7	68.6	100.0	14.8	30.5	34.4	12.7	2.7	0.9	2.3	.....	.....	1.3	0.4

[1] Includes cargo for either the United States, Canada, Mexico, or Central America where the exact destination can not be determined from the reports submitted.

Table II.—Origin and Destination of all Commercial Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, Fiscal Year 1923.

(Figures represent tons of 2,240 pounds.)

	From—										To—								
	West coast, of Mexico.	Miscellaneous.	Hawaiian Islands.	West coast, Central America.	West coast of Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast of Canada.	West Indies.	East coast, South America.	East coast of Mexico.	Miscellaneous.
1922.																			
July	7,704	.....	.....	4,122	29,190	52,631	57,846	340,241	176,945	668,688	334,549	149,392	163,831	9,522	701	2,693	1,657	.....	6,343
August	.....	5,905	6,000	5,647	17,589	35,074	46,758	286,728	205,497	609,189	343,330	116,950	119,572	7,183	11,253	8,690	2,211	.....	.....
September	.....	6,626	11,893	2,752	12,007	29,123	46,056	356,608	205,287	670,352	364,177	105,391	136,490	15,606	275	37,304	93	956	10,150
October	1,050	15,556	.....	2,493	27,609	7,374	29,594	498,828	298,284	880,788	438,733	166,126	201,871	11,282	14,553	18,809	674	.....	28,740
November	4,289	7,709	3,712	1,545	41,516	20,000	35,815	453,901	357,004	925,482	504,745	156,408	216,398	8,547	3	18,794	5,827	1,826	12,934
December	.....	17,175	.....	2,311	98,541	29,358	39,035	465,087	323,174	974,684	615,021	175,167	148,755	12,975	27	21,739	1,000	.....	.....
1923.																			
January	.....	8,443	1,326	4,194	111,559	33,017	34,598	459,277	340,865	993,189	541,309	137,446	275,467	17,394	.....	18,622	2,951	.....	.....
February	.....	31,680	.....	10,561	61,322	39,141	23,289	525,443	308,403	999,839	669,855	139,340	129,297	7,914	15,044	32,928	3,115	2,346	.....
March	56	15,959	.....	15,034	44,854	32,287	21,500	769,903	362,847	1,262,440	890,620	128,057	194,281	22,873	398	7,132	1,382	17,697	.....
April	3,127	11,886	.....	17,182	35,256	43,572	31,644	1,036,144	354,971	1,533,776	1,172,232	100,256	126,361	17,896	29,033	15,696	4,955	60,208	7,226
May	.....	39,026	.....	15,074	70,951	40,203	23,782	1,117,430	216,266	1,522,732	1,128,759	126,159	104,583	18,509	30,097	17,902	25	96,698	.....
June	1,568	20,150	.....	4,751	54,155	36,405	19,474	1,145,992	157,962	1,440,457	1,050,596	127,151	61,752	29,986	23,899	22,399	3,760	120,914	.....
Fiscal year 1923	17,794	180106	22,931	85,666	604,546	398,185	409,301	7,455,582	3,307,595	12,481,616	8,053,926	1,627,843	1,878,571	179,597	125,283	222,708	27,650	300,645	65,393
Fiscal year 1922	.....	66,715	112,401	80,587	180,981	439,523	323,104	2,867,819	1,317,816	5,388,976	2,295,715	1,676,586	1,187,200	144,885	6,521	43,487	6,924	.....	27,658
Per cent of total cargo:																			
1923	0.1	1.4	0.2	0.7	4.8	3.2	3.3	59.7	26.6	100.0	64.5	13.1	15.1	1.4	1.0	1.8	0.2	2.4	0.5
1922	.....	1.2	2.1	1.5	3.3	8.2	6.0	53.2	24.5	100.0	42.7	31.1	22.1	2.7	0.1	0.8	0.1	.....	0.4

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, Fiscal Year Ending June 30, 1923.

ATLANTIC TO PACIFIC.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—									TONS OF CARGO TO—									
	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	Miscellaneous.	Hawaii.
Aerated waters	.....	.....	.....	.....	.....	71	.....	1,266	1,337	15	1,300	.....	.....	.....	.....	.....	.....	22	.....
Agricultural implements	.....	.....	33	.....	206	853	5,388	19,745	26,225	4,332	10,229	556	10,874	.....	210	.....	.....	12	12
Alcohol	.....	.....	.....	.....	.....	.....	.....	42	42	.....	28	14	.....	.....	.....	.....	.....	.....	.....
Ammonia	.....	.....	.....	.....	26	555	.....	75,368	75,949	.....	3,040	67,223	200	.....	13	.....	.....	13	5,460
Ammunition	.....	.....	.....	.....	.....	4	30	207	241	4	165	.....	72	.....	.....	.....	.....	.....	.....
Asbestos	.....	.....	.....	.....	.....	.....	134	931	1,065	118	65	693	100	34	.....	.....	.....	.....	55
Asphalt	.....	.....	.....	3,000	.....	5	500	12,599	16,149	834	491	7,910	6,373	1	.....	.....	.....	630	.....
Automobiles	2	.....	14,007	.....	77	267	949	36,172	51,474	1,508	2,471	2,685	44,516	10	102	.....	.....	180	2
Auto accessories	.....	.....	2,570	.....	.....	50	114	5,265	7,999	239	3,899	20	3,841	.....	.....	.....	.....	.....	.....
Aeroplanes	.....	.....	.....	.....	.....	.....	.....	75	75	.....	75	.....	.....	.....	.....	.....	.....	.....	.....
Balsam	.....	.....	.....	.....	.....	.....	.....	20	20	.....	20	.....	.....	.....	.....	.....	.....	.....	.....
Barley	.....	.....	.....	.....	.....	.....	11	118	129	118	9	.....	.....	.....	2	.....	.....	.....	.....
Bark, Peruvian	.....	.....	.....	.....	.....	10	.....	.....	10	.....	.....	.....	.....	.....	10	.....	.....	.....	.....
Bark, ground	.....	.....	.....	.....	.....	4	.....	.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beans	.....	.....	.....	.....	32	367	116	136	651	45	336	67	10	170	.....	.....	.....	23	.....
Blood and tankage, dried	.....	14,581	.....	.....	.....	.....	.....	100	14,681	100	12,489	2,092	.....	.....	.....	.....	.....	.....	.....
Bones and bone meal	.....	5,807	.....	.....	.....	.....	.....	467	6,274	.....	5,108	1,166	.....	.....	.....	.....	.....	.....	.....
Borax	.....	.....	.....	.....	.....	263	247	94	604	302	95	.....	206	.....	1	.....	.....	.....	.....
Bricks, fire	.....	.....	.....	.....	22	1,474	8,404	1,999	11,899	1,387	8,820	506	70	.....	222	.....	.....	894	.....
Calcium carbide and chloride	.....	.....	42	.....	145	1,365	4	1,348	2,904	1,623	557	110	134	.....	480	.....	.....	.....	.....
Canned goods:																			
Fish	.....	3	654	.....	491	2,382	1,203	6,834	11,567	565	8,000	13	1,746	93	399	375	.....	376	.....
Fruit	.....	.....	.....	.....	229	237	105	1,592	2,073	226	1,347	60	.....	96	229	.....	.....	115	.....
Meat	.....	300	.....	.....	10	346	174	2,470	3,300	160	2,363	485	60	106	.....	.....	.....	109	17
Milk	.....	.....	.....	.....	122	62	.....	843	1,028	916	28	.....	30	.....	54	.....	.....	.....	.....
Vegetables	.....	.....	2	.....	100	943	60	14,306	15,411	602	14,533	94	7	38	136	.....	.....	.....	1
Other	.....	.....	.....	.....	.....	43	300	4,994	5,337	.....	4,617	385	335	.....	.....	.....	.....	.....	.....
Carbon, black	.....	.....	.....	.....	.....	.....	.....	377	377	31	.....	317	29	.....	.....	.....	.....	.....	.....
Cement	.....	.....	22	.....	724	61,955	21,534	29,491	113,726	69,320	29,926	854	3,027	580	4,281	1,680	700	606	2,752
Chalk	.....	.....	.....	.....	.....	5,640	692	.....	6,332	88	6,244	.....	.....	.....	.....	.....	.....	.....	.....
Chemicals	.....	.....	279	.....	799	5,281	5,475	13,333	25,167	5,906	7,326	6,640	3,961	81	549	.....	451	253	.....
China clay and fire clay	.....	.....	.....	.....	.....	.....	1,050	68	1,118	77	969	.....	.....	.....	.....	.....	.....	72	.....
Cereals	.....	.....	4	.....	.....	16	.....	313	333	.....	83	211	39	.....	.....	.....	.....	.....	.....
Charcoal	.....	.....	.....	.....	.....	.....	.....	621	621	.....	621	.....	.....	.....	.....	.....	.....	.....	.....
Chocolate	.....	.....	.....	.....	.....	.....	.....	1,369	1,369	.....	1,246	40	81	.....	.....	.....	.....	2	.....
Coal	.....	.....	.....	.....	5	1,090	99,254	82,480	182,829	91,755	66,174	.....	1,300	1,024	5	14,775	120	.....	7,676
Cacao	1	747	545	.....	836	115	282	768	3,294	92	2,150	112	875	.....	5	.....	50	10	.....

Coconuts					30		10	10	50	50										
Coffee	215	17,636	15		2,483	53	189	521	21,112	577	19,013	120	15	1,379		8				
Coke						2,388	80,364	14,762	97,514	54,998	40,856		1,228	100	29					303
Cold storage:																				
Butter						50		75	125	50	71	4								
Cheese						139		35	174	1	159			14						
Eggs								379	379		379									
Lard					725			3,602	4,328	1,198	2,967				163					
Meat		10				20		455	485	475	10									
Other						492	53	677	1,222	3	972	5	15	22					205	
Casein						100			100		100									
Copra						111		2,808	2,919	100	30	2,778		11						
Cork								1,190	1,190	3	1,187									
Corn					10			2,697	2,707	1,803	894				10					
Cotton					130	282		122,316	122,728	336	1,228	121,139							25	
Cosmetics								30	30			30								
Confectionery							110	1,640	1,750	15	1,735									
Cottonseed oil cake								880	880		880									
Creosote						10,424	21,451	59	31,934		26,028			5,906						
Cyanide					247	30		456	733		330				403					
Drugs					20	28		1,818	1,866	407	1,329		45		83				2	
Dyes					20	121		1,163	1,304	21	100	1,163			20					
Dyewood						5	5	651	661	5		651	5							
Earthenware						50	2,025	899	2,974	1,417	1,257			300						
Explosives						453	747	4,720	5,920	1,131	3,608		1,171		6				4	
Extract, logwood								15	15			15								
Epsom salts								18	18		18									
Fertilizer		9,316			105	1,263	716	774	12,174	8	10,798	634	216		518					
Flour					511	68	137	6,868	7,584	1,775	282	5,168	354		5					
Fruit, dried					2	87	991	263	1,343	29	554	10	330	160					260	
Fruit, fresh					78				78		78									
Fuller's earth							375	14,386	14,761		14,736			25						
Flint pebbles					90	2,631			2,721		1,706			925	90					
General	118	2,535	31,746		63,861	204,186	318,016	1,527,795	2,148,257	268,029	1,160,469	239,837	375,475	16,639	24,358	23	1,625	56,909	4,893	
Glass and glassware					92	22,309	1,484	8,382	32,267	1,198	21,905	10	768	223	272	33		6,256	1,602	
Graphite								102	102			102								
Guano		62					181	700	943		943									
Glycerine								454	454		454									
Glue								2	2		2									
Glucose								667	667		193	337	100						37	
Gum, copal						24			24		24									
Hardwood					103	17		2,438	2,558	327	1,954	277								
Hats					4	172	33	300	509	192	298	2	11		6					
Hemp					19	50	12	306	387	6	350		2	10	19					
Horns and hoofs		524						1	525	450		75								
Hair		58						299	357		357									
Hay						4			4	4										
Indigo					6	18	14	1,753	1,791	19		1,753	14		5					
Ink								162	162	11	50	77	24							
Jute					500	153	159	323	1,135	705	323			96	10					1
Leather					5	1		162	168	1	142				25					
Linoleum						20	233	3,224	3,477	6	3,267		52	2				150		

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, Fiscal Year Ending June 30, 1923.—Contd.

ATLANTIC TO PACIFIC.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—									TONS OF CARGO TO—									
	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	Miscellaneous.	Hawaii.
Liquors	3	39	12	.....	1,817	3,072	9,406	387	14,736	3,365	214	158	3,903	5,309	1,479	.....	177	131	.....
Livestock	.....	454	6	.....	2	60	3	6	531	520	.....	.....	11	.....	.....	.....	.....	.....	.....
Lumber	.....	3,253	130	.....	25	.....	.....	7,334	10,742	4,259	5,341	457	680	.....	.....	.....	.....	.....	14
Lithotome	.....	.....	.....	.....	.....	.....	.....	762	762	.....	762	.....	.....	.....	.....	.....	.....	.....	.....
Lime	.....	.....	.....	.....	.....	.....	.....	293	293	137	.....	156	.....	.....	.....	.....	.....	.....	.....
Lamp black	.....	.....	.....	.....	.....	.....	.....	25	25	.....	25	.....	.....	.....	.....	.....	.....	.....	.....
Magazines	.....	.....	.....	.....	.....	.....	.....	647	647	.....	647	.....	.....	.....	.....	.....	.....	.....	.....
Malt	.....	.....	.....	.....	.....	34	.....	573	607	407	.....	200	.....	.....	.....	.....	.....	.....	.....
Manufactured goods:																			
Iron and steel	.....	.....	25,805	80	4,351	50,597	98,781	1,320,228	1,499,842	94,019	989,168	231,937	122,858	11,053	6,375	40	2,804	20,610	20,978
Machinery	.....	21	2,257	190	1,592	11,857	21,144	115,970	153,031	30,556	56,767	28,977	30,947	1,052	2,793	263	331	1,175	270
Railroad material	.....	.....	6,345	.....	171	21,914	17,016	127,813	173,259	29,726	30,487	90,354	16,084	1,862	458	.....	59	3,743	495
Textiles	.....	.....	240	.....	2,687	12,730	21,469	36,817	73,943	29,605	20,562	6,289	13,989	499	2,096	.....	135	734	34
Other	.....	79	817	.....	1,064	5,749	12,987	98,819	119,515	10,277	91,498	5,930	6,379	1,276	1,113	.....	1,225	1,655	162
Marble	.....	.....	.....	.....	.....	755	250	1,447	2,452	523	1,887	.....	22	.....	.....	.....	.....	20	.....
Matches	.....	.....	.....	.....	170	68	.....	150	388	.....	173	.....	.....	.....	178	.....	37	.....	.....
Metals:																			
Aluminum	.....	.....	.....	.....	.....	210	.....	744	954	.....	233	721	.....	.....	.....	.....	.....	.....	.....
Copper	.....	.....	.....	.....	.....	2	901	1,919	2,846	103	758	1,085	829	55	1	.....	.....	.....	15
Iron	.....	.....	.....	.....	600	27,618	48,247	37,062	113,527	4,495	82,879	5,585	15,151	1,785	699	.....	50	1,230	1,653
Lead	.....	.....	.....	.....	.....	26	163	542	731	96	30	399	180	25	1	.....	.....	.....	.....
Scrap	.....	.....	.....	.....	.....	10	328	6,187	6,525	.....	5,665	530	320	.....	10	.....	.....	.....	.....
Gold and silver	.....	.....	.....	.....	.....	.....	15	36	51	26	.....	10	15	.....	.....	.....	.....	.....	.....
Tin	.....	.....	.....	.....	150	28	15,820	128,221	144,219	2,163	100,569	19,534	4,681	7,659	105	.....	146	2,400	6,962
Zinc	.....	.....	.....	.....	.....	160	315	463	938	193	272	155	66	252	.....	.....	.....	.....	.....
Other	.....	.....	.....	.....	.....	71	.....	841	912	.....	106	806	.....	.....	.....	.....	.....	.....	.....
Milk, powdered	.....	.....	.....	.....	.....	.....	.....	69	69	20	49	.....	.....	.....	.....	.....	.....	.....	.....
Musical instruments	.....	.....	100	.....	.....	.....	25	868	993	.....	520	.....	473	.....	.....	.....	.....	.....	.....
Nitrates	.....	.....	.....	.....	111	3,616	100	2,524	6,351	1,500	100	2,272	100	200	117	.....	.....	662	1,400
Nuts	.....	734	.....	.....	.....	149	.....	279	1,162	.....	1,082	.....	.....	50	.....	.....	.....	30	.....
Oats	.....	.....	.....	.....	.....	.....	.....	78	78	33	45	.....	.....	.....	.....	.....	.....	.....	.....
Oils:																			
Coconut	.....	.....	.....	.....	.....	.....	.....	60	60	.....	60	.....	.....	.....	.....	.....	.....	.....	.....
Cottonseed	.....	.....	.....	.....	.....	.....	.....	2,178	2,178	1,234	922	.....	.....	.....	22	.....	.....	.....	.....
Crude	.....	.....	.....	261,877	.....	73	229	22,722	284,901	245,602	247	9,050	1,485	15	4,548	23,954	.....	.....	.....
Glycerine	.....	.....	.....	.....	.....	.....	.....	415	415	.....	415	.....	.....	.....	.....	.....	.....	.....	.....

Linseed						494	4,057	1,568	6,119	216	5,844	2	21	34	2				
Lubricating				6,169	99	158	538	91,258	98,222	12,011	19,980	46,655	15,639	299	836		872	1,829	101
Olive						1,789	210	837	2,836	651	1,862	323							
Refined		76		15,246	71	52	342	642,114	657,901	10,573	3,863	471,530	161,195		660	4,706		5,374	
Vegetable					60	1,709	332	2,272	4,373	1,322	2,626	111	25		60		2	227	
Other						33	1,027	7,119	8,179	2,168	2,568	1,375	2,066		2				
Ores:																			
Copper						5			5						5				
Cyanide					136			49	185	57				128					
Iron					405	1,197	9,723	5,763	17,088	1,088	11,489	591	2,449	700	471			300	
Magnesite								429	429		429								
Manganese						500	852	15	1,367		1,353		14						
Tin						2		3,260	3,262	913	1,832				2				515
Zinc					10			48	58	10	48								
Other						466	540	86	1,092	203	777	71	41						
Paints and varnishes					220	132	2,437	2,100	4,889	332	2,063	124	2,122		248				
Paper, roofing								477	477	73	37	317							50
Patent fuel							8,789	504	9,293	9,293									
Peanuts								1,102	1,102		1,102								
Phosphates						9,258	2,400	18,926	30,584	10	713	16,828	10,185		73			2,775	
Plaster			236				550	555	1,341			213	1,128						
Porcelain						5		40	45		45								
Potash						41	100	78	219		34	44	100		41				
Pulp						4,996	700	1,378	7,074		5,450	869	742						13
Perfumery							16		16	10	3			3					
Paper			6,925		504	41,887	5,286	35,013	89,615	17,322	49,349	4,828	13,087	139	2,301	2	87	2,468	32
Pitch								257	257	10	238								9
Quebrach extract		434						9	443		283	160							
Rags						5,064	15	70	5,149		4,229	25		200				695	
Rice		4			1,182	2,625	20	8,355	12,186	8,961	3,153	14		4	54				
Rosin					108			18,399	18,507	1,491	5,543	10,911	562						
Rubber, manufactured			160			13	50	6,264	6,487	61	4,352	1,602	443					2	27
Rubber, raw		1						93	96	1	92	3							
Salt	1,375	5,879				1,468	19,046	1,145	28,913	7,458	1,204		18,217	867	62	5		1,100	
Saltpeter						300	70		370		300		70						
Seeds:																			
Beet						240			240		240								
Canary		447				12			459		459								
Cotton		3,371				497		188	4,056	3,863	176	12			5				
Grass		34				50		390	474		474								
Linseed		6,794							6,794		6,794								
Sunflower		643						117	760		760								
Other		328				100		10	438		438								
Shells								5,514	5,514		4,968		495					51	
Silk						54	34	316	404	59	325	3	14	3					
Silversand						27,806	2,300	1,159	31,265		31,265								
Skins and hides		5,161	10					180	5,351		5,007	334	10						
Slag						4,236	10,010	4,072	18,318				18,318						
Slate						25	97	282	404		377	27							
Soap		4			126	183	342	5,895	6,550	619	5,754	16	63	33	17		20	17	11
Soda, ash					21		787	3,966	4,774	202	4,340			155	66		11		
Soda, bicarbonate					25		30	606	661	88	322	200			25			26	

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of Same, Fiscal Year Ending June 30, 1923.—Contd.

ATLANTIC TO PACIFIC.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—									TONS OF CARGO TO—									
	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	Miscellaneous.	Hawaii.
Soda, caustic	.....	.....	.....	.....	52	51	298	5,012	5,413	354	2,144	2,720	.....	48	51	9	.....	.....	87
Soda	.....	.....	.....	.....	.....	.....	10	1,717	1,727	395	1,159	163	10	.....	.....	.....	.....	.....	.....
Spices	.....	.....	.....	.....	.....	21	.....	12	33	.....	26	.....	.....	.....	.....	.....	7	.....	.....
Starch	.....	.....	.....	.....	.....	22	.....	2,561	2,583	13	650	1,760	150	1	9	.....	.....	.....	.....
Sugar	28,759	2,750	.....	.....	.....	30	.....	7,096	38,635	1,668	3,018	56	22	33,871	.....	.....	.....	.....	.....
Sulphur	.....	.....	.....	.....	.....	68	.....	117,016	117,084	68	78,481	2,562	28,353	6,120	.....	.....	.....	.....	1,500
Syrup	6,000	.....	.....	.....	.....	.....	.....	1,739	7,739	26	7,558	.....	155	.....	.....	.....	.....	.....	.....
Sodium, sulphate	.....	.....	.....	.....	.....	.....	.....	2,000	2,000	.....	.....	2,000	.....	.....	.....	.....	.....	.....	.....
Sodium, silicate	.....	.....	.....	.....	.....	.....	.....	207	207	207	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seed, mustard	.....	.....	.....	.....	.....	.....	14	.....	14	.....	.....	.....	.....	14	.....	.....	.....	.....	.....
Talc	.....	.....	.....	.....	.....	5	.....	.....	5	.....	5	.....	.....	.....	.....	.....	.....	.....	.....
Tar	.....	.....	.....	.....	.....	.....	40	530	570	500	30	.....	40	.....	.....	.....	.....	.....	.....
Tartar	.....	.....	.....	.....	.....	311	.....	.....	311	.....	311	.....	.....	.....	.....	.....	.....	.....	.....
Tea	.....	.....	.....	.....	.....	81	1,102	129	1,312	825	273	26	.....	188	.....	.....	.....	.....	.....
Tobacco	123	299	50	.....	66	13	1,364	37,591	39,506	412	4,252	25,776	7,899	.....	67	.....	.....	1,100	.....
Turpentine	.....	.....	.....	.....	.....	.....	.....	1,511	1,511	62	254	96	1,099	.....	.....	.....	.....	.....	.....
Toys	.....	.....	.....	.....	.....	60	.....	181	241	.....	241	.....	.....	.....	.....	.....	.....	.....	.....
Vegetables	.....	.....	.....	.....	5	228	.....	110	343	22	236	.....	.....	.....	15	.....	.....	70	.....
Wax	.....	.....	.....	.....	703	35	53	14,095	14,886	5,464	136	6,699	2,036	.....	431	.....	.....	120	.....
Wool	.....	.....	.....	.....	.....	244	64	895	1,203	356	847	.....	.....	.....	.....	.....	.....	.....	.....
Walnuts	.....	.....	.....	.....	.....	110	10	.....	120	.....	120	.....	.....	.....	.....	.....	.....	.....	.....
Zinc oxide	.....	.....	.....	.....	3	.....	.....	1,307	1,310	.....	1,280	.....	27	3	.....	.....	.....	.....	.....

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, Fiscal Year Ending June 30, 1923.

PACIFIC TO ATLANTIC.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—								
	West coast, Mexico.	Miscellaneous.	Hawaiian Islands.	West coast, Central America.	West coast of Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast of Canada.	West Indies.	East coast, South America.	East coast of Mexico.	Miscellaneous.
Agricultural implements								386	4	390	139						251		
Albumen								88		88	88								
Alfalfa meal								227		227	207	20							
Algarrabilla									1,246	1,246		707	539						
Arsenic							170	643		813	813								
Asphalt								291		291	199	92							
Automobiles					4	1	10	275	16	306	226	21	27	23			6		3
Automobile accessories								5		5	3			2					
Alcohol								100		100	100								
Asbestos						200		14		214	214								
Alpaca									14	14	14								
Ammunition								2		2	2								
Balsam				44						44	12		3	29					
Bamboo							206	26		232	232								
Bark:																			
Cascara		5			23			343	73	444	243	175	17	9					
Peruvian				10				8	236	254	15	24	170	45					
Quillai				179				17	2,183	2,379	160	246	1,970	3					
Other						16			83	99		16	29	54					
Barley		3,220				1,595		332,706	42,021	37,954	18	253,608	125,910	6					
Beans	15,486	115			390	2,562	9,541	47,413	9,302	84,809	53,354	2,170	20,709	164	591	7,821			
Beeswax									71	71	71								
Borax		60						21,900	30,223	52,183	17,607	18,067	16,503			6			
Bean									3,874	3,874	143	1,465	2,181	85					
Bristles							171	78		249	240			9					
Burlap									58	58	58								
Cacao				54	6	389		90	33,266	33,805	12,707	300	7,680	12,598		90	430		
Camphor							296	118		414	414								
Canned goods:																			
Fish		3,489	90		10,957		13,108	141,253	5	168,902	116,965	33,495	17,484	83		168	625	82	
Fruit		10,242	22,769		1,088		30	237,506	874	272,509	153,559	87,158	29,922	160		1,136			574
Meat					200	273		907		1,380	1,006	172	200	2					
Milk					595			5,575		6,170	* 5,050	1,120							
Vegetables							28	19,847	23	19,898	18,822	636	116	25		296	3		
Other		2,600					263	17,739		20,602	15,191	2,464	2,600	42	305				
Carbon black								115		115	115								

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, Fiscal Year Ending June 30, 1923.—Contd.

PACIFIC TO ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—								
	West coast, Mexico.	Miscellaneous.	Hawaiian Islands.	West coast, Central America.	West coast of Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast of Canada.	West Indies.	East coast, South America.	East coast of Mexico.	Miscellaneous.
Cassia							2,295			2,295	2,295								
Celete, filteral	1,137	60			28			3,720		4,945	4,049	441			445				
Cement								34		34	25			9					
Cereals									964	964		905		59					
Charcoal								496		496	496								
Chemicals				25			185	4,691	32	4,933	4,802	56	5	25				45	
Chinaware					28			72		100	100								
Coal					340			50		390	59		340						
Cocoa leaves				5				8	68	81	6			75					
Coconuts				1,015			1,030	29	375	2,449	1,110		1,250	24		65			
Coffee	26	135		52,857		3		1,183	27,450	81,654	16,795	8	15,793	48,635		423			
Cold storage:																			
Beef					14	12,676	3,000	28		15,718	3,051	12,667							
Butter				1		18,997		447	3	19,448	599	18,804	1	3	17	24			
Casein				44		3,232		91		3,367	2,269	188	68		842				
Cheese						15,584		41		15,625	41	15,584							
Eggs								879		879	879								
Mutton						28,192			409	28,601		28,192	409						
Lard								301	107	408	124	189	88	7					
Pork						63				63		63							
Tallow				5	113	6,344		2,011	140	8,613	2,256	6,151	163	5	23	15			
Other		306		4	70	10,299		2,653	4	13,336	920	11,258	1,154	4					
Copra		5,101	44	23		60,116	6,161	97		71,542	13,492	8,567	49,460	23					
Corn	900				462				319	1,681			1,681						
Cotton		10		432	70		4,209	12,833	34,038	51,592	20,085	24,005	2,068	5,434					
Cottonseed oil cake						100		3,795	15,829	19,724		13,927	5,797						
Drugs								96		96	96								
Dyes								7		7	7								
Dyewoods				3,618					400	4,018	10		2,505	1,503					
Earthenware							120	346		466	466								
Eggs, dried								880		880	720			160					
Explosives								222	233	455		74		276				105	
Fertilizer								193		193	191			2					
Fireworks							2,023	14		2,037	2,032					5			
Flax						1,259		27	112	1,389	1,112	250	27						
Flour		5,562		2	5,772	25	650	56,822		68,833	17,927	39,153	10,532	485		212	524		

Fruit, dried		1,031			200			88,264	692	90,187	45,072	24,953	19,613	36	75	61	377		
Fruit, fresh		2,772				680		27,869	711	32,032	4,565	26,666	570	48		5	178		
Fuller's earth								1,262	653	1,915	1,915								
General		13,708		1,021	10,390	37,044	67,714	389,135	52,344	562,356	444,591	51,847	46,236	5,655	7,630	4,481	856	81	976
Gall stones							486			486	486								
Garlic									540	540	372			15		153			
Glassware								2		2				2					
Glue									212	212	210					2			
Glycerine						74		427		501	501								
Guano									5,700	5,700	5,700								
Gum kauri						6,577				6,577	5,293	263			1,021				
Gum yacca						259				259	259								
Hair							93	176	1	270	270								
Hardwood		60		6,638	423			282	114	7,517	3,170	1,098	1,208	2,041					
Hats		4					904	3	345	1,256	990	8	8	250					
Hay								1,420	143	1,563	1,420			140		3			
Hemp		8,617		7		4,293	12,136	3,811	20	28,884	27,830	714		9	316	15			
Honey		2		73		50		971	1,139	2,238	775	558	887	15	3				
Hops								857		867	734		130	3					
Horns and hoofs				82	3	3	23	7	346	461	95	4	295	70					
Indigo				75						75	1			74					
Infusorial earth								462		462	229	93					140		
Ink								24	6	30	14								16
Iodine									475	475	325		144	6					
Ivory nuts						73			28,961	29,034	11,434	20	8,899	8,628	53				
Jute									18	18				18					
Kapok							10	81	24	115	91			24					
Leather								147	29	176	147		10	19					
Linoleum					5		871	879		1,755	1,755								
Liquors					2,010		2	1,034	79	3,125	890	2,140	29	57		2	7		
Livestock				7						7				7					
Lumber		67,369		2,202	202,965	2,498	11,425	1,252,863	18	1,539,340	1,362,802	66,191	31,323	277	32,551	12,964	20,204	13,028	
Lime			28	11				447		486	475			11					
Manufactured goods:																			
Iron and steel								1,085	16	1,101	1,072		4	25					
Machinery				12	7	5	23	3,423	165	3,635	2,872	124	105	29		26	478	1	
Railroad material								20		20	20								
Textiles					21	9	174	1,523	11	1,738	1,725	1	12						
Other					5		2,200	1,738	39	3,982	3,688	280		14					
Matches							400			400	400								
Metals:																			
Antimony						136	407	384	30	957	927		30						
Copper		897			6,038	749		126,458	163,642	297,775	211,620	12,938	41,834	31,233	150				
Gold and silver				13				501	143	657	551	32	38	39					
Iron								800		800	800								
Lead					2,015	576		19,216	809	13,616	7,561	4,129	1,865	58				3	
Tin					159	232	3,571	65	13,145	17,163	6,323	7,734	3,105	1					
Zinc		550			2,640	5,996	150	2,650		11,986	476	9,985	1,525						
Other				12			1,186	1,457	1,346	4,001	2,677	1,072	179	73					
Milk, dried						210		431	16	657	346	281	30						
Metal, scrap				2,710	12			1,969	67	4,758	4,686	41	21	10					
Malt								35		35	35								

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, Fiscal Year Ending June 30, 1923—Contd.

PACIFIC TO ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CAROO TO—								
	West coast, Mexico.	Miscellaneous.	Hawaiian Islands.	West coast, Central America.	West coast of Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast of Canada.	West Indies.	East coast, South America.	East coast of Mexico.	Miscellaneous.
Magazines								23		23	23								
Nitrates								9,998	1,654,753	1,664,751	853,173	66,919	673,372	4,046		16,750			50,491
Nuts								959	330	1,289	594	72	623						
Oats		468				1,292			9,639	11,399		10,229	850	20	300				
Oils:																			
Coconut		10,171					20,386	685		31,242	31,027	215							
Cottonseed									1,009	1,009		508	9	492					
Crude								3,689,049	239,751	3,928,800	3,288,443	52,251	64,329	39,477	77,939	129,384		276,977	
Eucalyptus				1		51				52	51				1				
Linseed								4		4				4					
Lubricating							486	113,802	32	114,320	69,583	37,136	7,600					1	
Rapeseed								100		100	100								
Refined							14,386	249,840	27,318	291,544	136,379	98,457	46,296	89				10,323	
Vegetable				4			12,698	131	244	13,077	12,829	104		144					
Wood							7,063	699		7,762	7,762								
Other						5	778	970	246	1,999	826	970	45	159	3	5			
Onions								1,190	376	1,566	97			75		1,394			
Orchilla									18	18	18								
Ore:																			
Antimony						50	613	703	40	1,406	1,406								
Copper						2,254		11,167	83,015	96,436	88,981	3,502	1,153	2,800					
Gold and silver	37			2		300			5,426	5,765	3,442	963	398	962					
Iron						5,000		8	533,796	538,804	538,708	5	91						
Lead						2,056		22	1,164	3,242	72	814	2,356						
Magnesite								12,587		12,587	12,587								
Manganese								4,286	1,668	5,954	4,243	1,668	43						
Tin						19	180	10	38,460	38,669	7,836	28,137	2,640	56					
Zinc					190			50	822	1,062	50	165	847						
Other						6,058		91	1,855	8,004	985	6,340	679						
Oils:																			
Whale								151	710	861	1	860							
Cassia							30			30	30								
Camphor							7			7	7								
Ore:																			
Nickel									118	118	118								
Tungsten								134		134	119	15							
Chrome						500				500	500								

Onyx								19		19	19						7		
Paints								101	8	109	78					24	7		
Paper					40		25	7,085		7,150	7,031					88	31		
Peanuts							1,218	2,995		4,213	4,113		100						
Phosphates						76,000	750			76,750	5,845	5,600	64,555			750			
Porcelain							1,616	760		2,376	2,376								
Pulp, paper		528			7,646			1,625		9,799	9,162	637							
Plaster								110		110	110								
Paper roofing								56		56			30				26		
Quicksilver								30		30	30								
Quebracho extract							387			387	387								
Rags								354		354	354								
Rice	150			13	256		77,885	5,225	7	83,536	34,002	155	789	1,406		45,867	1,317		
Rubber				17			11,645	1,764	570	13,996	13,871	6	14	82	15		8		
Rye					6,166			2,507	80	8,753		1,215	7,538						
Salt								223	426	649	649								
Saltpeter									16,318	16,318			16,318						
Seeds:																			
Clover						80		60	1,521	1,661	140	1,441	80						
Cotton				70		46		676	10,307	11,199	479	9,248	948	515					
Flower								10		10		5	5						
Grass						100			5	105	90	15							
Hemp							100	47		147	147								
Linseed							2,039			2,039	2,039								
Millet							690	417		1,107	1,107								
Mustard							343	309	63	715	683		32						
Rape							522	103		625	625								
Other						95	70	470	97	732	534	62	57	77	2				
Shells		41		76	30	1,229	11	83	36	1,506	1,168	30	199	63	30	16			
Silk					32		649	999	17	1,697	1,687			10					
Skins and hides	17			2,229	620	16,076	4,762	13,783	8,838	46,325	36,333	4,042	2,118	2,640	1,192				
Slate		5						151		156		26	130						
Soap								268		268	266			2					
Spices						5	547			552	547		5						
Starch							102			102	102								
Sugar		25,160		12,278			78,875		180,158	296,471	116,941	107,217	65,674	6,639					
Syrup								140		140	140								
Soda								120	532	652	552		100						
Seed, sesame							1,126	25		1,151	1,151								
Talc								2,698		2,698	2,698								
Tea							16,165	980		17,145	17,139						6		
Tobacco		83			9		316	1,130		1,538	1,462						76		
Toys								10		10	10								
Tartar									121	121	26	30	65						
Vegetables								181	103	284	44			59		181			
Walnuts								603	77	680	680								
Wax							26	714	56	796	774	22							
Wheat		13,159			340,506	7,369		455,229	129	816,392	5	363,364	438,121						14,902
Wool						60,581	7,498	22,433	12,596	106,111	68,141	32,410	2,640	756	2,164				
Zinc oxide		3,000						109		109	109								

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 6, 1922.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Corinto	20	13.28	30	6.01	30	13.26	30	18.08	American	Pacific Mail Steamship Co	261.1	40.0	17.6	Cristobal	San Francisco	General	1,834	2,352	1,549
Kermit	30	2.40	30	7.37	30	14.29	30	20.08	American	United American Line	471.1	59.1	16.0	New York	Los Angeles	General	2,600	9,032	6,655
Knoxville City	30	10.38	30	10.45	30	17.33	39	18.41	American	U. S. Steel Products Co	424.2	56.2	25.6	Galveston	Kobe	(5)	7,726	7,611	5,450
Seirstad	30	13.33	30	13.40	30	20.27	30	21.50	Norwegian	I. F. Klavness	455.0	60.4	16.6	Philadelphia	San Francisco	Ballast		9,620	7,148
Ionic	29	23.45	1	6.00	1	14.32	1	15.48	British	White Star Line	599.0	63.3	26.6	London	Wellington	General	2,700	12,872	9,577
Laura C. Hall [2]	29	15.35	1	6.13	1	17.13	2	10.31	British	Pacific Metals Corp	81.0	25.6	9.0	Cristobal	Buenaventura	(6)	64	132	72
Port Stephens	30	16.46	1	7.25	1	17.11	1	18.08	British	Commonwealth & Dom. Line	440.0	55.0	20.6	New York	Wellington	General	2,295	7,812	5,706
Albionstar	28	8.15	1	11.40	1	19.10	1	20.21	British	Union Cold Storage Co	451.0	58.5	19.2	New York	Seattle	Ballast		8,317	5,531
Nardana	1	11.18	2	6.09	2	13.30	2	14.49	British	British-India Steam Nav. Co	449.0	58.0	29.6	Liverpool	Auckland	General	7,748	8,213	5,434
Imlay [1]	2	2.00	2	7.20	2	14.28	2	15.40	American	Malston Co	426.0	57.0	22.0	New York	San Pedro	Ballast		7,218	4,959
Rapot	2	5.25	2	8.15	2	15.44	2	17.07	German	Roland Line	393.0	54.0	24.10	Antwerp	Guayaquil	General	5,900	6,583	4,660
H. M. Flagler [1]	2	5.30	2	9.18	2	16.35	4	11.15	American	Standard Oil Co	461.6	60.0	21.6	New York	San Pedro	Ballast		8,450	6,089
Inkum	2	2.50	2	9.55	2	17.43	2	18.50	American	J. H. Welford & Co	400.0	50.0	24.4	Port Arthur	Melbourne	General, case oil	6,495	6,067	4,449
H. H. Rogers [1]	3	2.35	3	6.30	3	14.03	3	19.22	American	Standard Oil Co	500.0	68.0	21.0	New York	San Pedro	Ballast		10,333	7,475
Mathilda [3]			3		3	8.39			American	United Fruit Co				Cristobal	Gatun Lake	Ballast		2	2
Dinnamare	3	7.05	4	6.12	4	13.23	4	14.25	Italian	La Volcee Line	339.0	47.6	18.6	Port Limon	Guayaquil	General	437	4,275	3,204
Lillian Luckenbach	4	1.45	4	7.45	4	14.29	4	19.03	American	Luckenbach Line	449.0	60.2	24.0	New York	Seattle	General	7,500	9,294	6,865
Governor	4	9.50	4	10.00	4	17.09	4	18.13	British	Harrison Line	410.0	52.3	24.0	Liverpool	San Pedro	General	6,604	6,683	4,775
Lima [4]	4	2.00	4	11.05	4	17.40	5	13.49	Swedish	Johnson Line	361.1	51.5	22.0	Gothenborg	San Francisco	(7)	5,016	5,304	3,900
Mari	3	21.15	4	11.09	4	29.44	4	22.26	Peruvian	Compania Naviera Amaya	350.4	50.0	11.0	Newport	Arica	Ballast		4,346	3,084
Remuera	4	12.55	4	13.15	4	20.01	5	16.10	British	New Zealand Shipping Co	485.0	62.3	23.6	London	Auckland	General	5,154	11,717	8,751
Sonora	4	7.12	4	13.18	4	21.38	4	23.01	French	French Line	388.7	54.1	18.6	Bordeaux	Talcahuano	(8)	1,654	6,394	4,515
Easterner	4	13.50	4	13.50	4	22.26	4	23.10	American	U. S. & A. Line (S. B.)	385.0	51.0	24.0	New York	Melbourne	(9)	3,900	5,945	4,561
Aconcagua	4	9.53	5	6.10	5	12.32	5	13.20	Chilean	Chilean Line	422.8	56.2	21.8	New York	Valparaiso	General	928	7,758	4,705
Sunbeam [1]	4	17.45	5	6.20	5	13.05	5	17.29	American	Sun Oil Co	420.3	59.2	20.0	Chester	San Pedro	Ballast		7,709	5,481
Agwipond [1]	4	18.30	5	7.08	5	14.52	5	16.00	American	War I Line	468.3	62.7	19.0	Baltimore	San Pedro	Ballast		9,810	6,965
E. T. Bedford [1]	4	21.20	5	7.15	5	14.43	5	15.48	American	Standard Oil Co	499.2	68.1	20.0	Norfolk	San Pedro	Ballast		11,009	7,967
Blue Triangle	4	18.31	5	8.10	5	15.52	5	17.29	American	N. Atl. & Western Co. (S. B.)	390.0	54.2	16.3	Philadelphia	Los Angeles	General	2,009	6,209	4,317
Manavi	27	23.00	5	8.15	5	16.40	5	23.14	British	Pacific Steam Navigation Co	216.0	35.0	12.7	Cristobal	Guayaquil	General	343	1,357	884
Agwisea [1]	4	23.55	5	8.20	5	16.16	5	17.19	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	22.0	New York	San Pedro	Ballast		9,802	6,961
Japan Arrow [1]	5	0.05	5	9.32	5	17.06	5	18.00	American	Standard Transportation Co	468.3	62.7	20.0	New York	San Pedro	Ballast		10,084	7,426
City of Tokio	5	1.25	5	9.42	5	17.44	5	19.00	British	Hall Line, Ltd	454.0	59.5	28.0	Sydney	Shanghai	Gen., hardware	8,565	9,085	6,833
Achatina [1]	5	4.55	5	10.15	5	17.54	6	1.06	British	Anglo-Saxon Petroleum Co	412.0	53.0	18.0	Rotterdam	San Francisco	Ballast		6,215	4,246
Eastern Prince	5	8.15	5	10.40	5	18.42	5	20.15	British	Prince Line, Ltd	468.0	58.0	25.0	Philadelphia	Yokohama	General	8,402	8,413	5,971
Tuxpanoil [1]	5	6.55	5	11.10	5	19.24	5	20.32	American	McAllister Bros. (S. B.)	455.0	59.5	22.3	New York	San Pedro	Ballast		7,862	5,049
Radnor	4	7.03	5	11.30	5	20.27	7	7.50	American	Tampa Interocean Co. (S. B.)	434.3	57.7	26.0	New Orleans	San Pedro	General, case oil	7,154	7,993	5,871
Nictheroy	5	9.26	5	12.35	5	21.15	6	3.00	British	Royal Mail Steam Packet Co	449.0	54.0	16.0	Liverpool	Seattle	Ballast		8,874	6,558

[1] Tanker. [2] Motor schooner. [3] Launch. [4] Motor ship. [5] Steel, sulphur, and ammonia. [6] Iron and machinery. [7] Rags, cement, coffee, and general. [8] Steel pipes and general.
[9] Case oil, automobiles, pianos, and general.

Arizonian	5	11.14	5	12.45	5	21.51	5	23.09	American	American-Hawaiian Line	471.1	57.0	20.0	Boston	San Francisco	General	2,959	9,141	6,684
Gen. O. H. Ernst	2	0.45	6	6.15	6	13.28	6	14.28	American	Panama Railroad Steamship Line	356.4	45.3	21.8	New York	Guayaquil	General	1,342	4,503	2,764
Suwarinco	5	14.45	6	6.30	6	14.22	6	15.37	American	Submarine Boat Corporation	324.0	46.2	22.6	Newark	San Pedro	General, steel	4,500	3,984	2,612
Atlantic Maru	5	15.40	6	6.30	6	13.01	6	19.24	Japanese	Kawasaki Steamship Co	385.0	51.0	18.6	Baltimore	San Antonio	Coke	3,518	6,251	4,700
Potosi	5	21.40	6	7.20	6	15.12	6	16.12	British	Pacific Steam Navigation Co	381.0	49.0	23.6	Liverpool	Corral	General	4,177	5,559	4,201
Thos. H. Wheeler [1]	6	6.00	6	7.23	6	14.46	6	15.52	American	Standard Oil Co	425.0	57.2	18.0	New York	San Pedro	Ballast		7,481	4,769
Santa Malta	5	15.35	6	8.26	6	15.29	6	16.17	American	Atlantic & Pacific S. S. Co	404.0	53.9	18.6	Baltimore	San Francisco	General	2,892	6,766	4,809
Hurunui	6	6.15	6	8.40	6	16.21	6	17.17	British	New Zealand Shipping Co	470.0	62.2	23.0	London	Australia	General	5,928	10,174	7,237
Howick Hall	6	1.05	6	9.50	6	16.58	6	18.00	American	U. S. Steel Products Co	400.8	51.6	25.6	New York	Vancouver	General	6,731	6,095	4,381
Mantaro	1	16.45	6	10.05	6	17.12	6	18.40	Peruvian	Peruvian Line	360.0	46.0	19.3	Cristobal	Guayaquil	General	152	4,838	2,959
Nitokris	6	1.35	6	10.40	6	17.57	6	18.55	German	Kosmos Line	410.0	50.6	22.5	Hamburg	Valparaiso	General	3,015	6,652	4,704
Robin Adair	5	23.50	6	11.10	6	19.06	6	20.30	American	Seas Steamship Co	424.8	55.2	23.6	Baltimore	Seattle	Steel	9,470	7,470	5,529

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Culebra [11]			30	6.30	30	13.15			American	The Panama Canal	288.0	47.0	10.0	Balboa	Cristobal	Ballast		2,245	684
Solana [1]	29	18.00	30	7.04	30	14.25	30	15.18	American	Pacific Mail Steamship Co	419.5	56.5	27.0	San Pedro	Fall River	Crude oil	10,000	7,060	5,025
Jason	29	22.30	30	7.46	30	15.37	1	20.48	Dutch	Royal Netherland W. I. Mail	360.0	48.6	21.6	Talcahuano	Liverpool	[13]	4,584	4,321	3,120
Isis	29	22.30	30	8.05	30	15.40	30	17.38	German	Kosmos Line	375.0	51.7	24.0	San Pedro	London	General, wheat	5,205	5,788	4,027
L. J. Drake [1]	29	23.50	30	8.53	30	17.43	30	17.43	American	Standard Oil Co	419.6	57.2	26.3	San Pedro	New York	Crude oil	9,000	7,406	4,916
J. N. Pew [1]	30	5.05	30	9.17	30	17.05	30	17.05	American	Sun Oil Co	480.5	66.0	28.3	San Pedro	Chester	Crude oil	13,597	9,491	6,612
El Kantara	30	6.00	30	10.24	30	18.35	1	18.30	French	Messageries Maritimes Co	433.6	52.5	22.0	Noumea	Dunkerque	General	3,688	7,357	4,983
Chuky [1]	30	11.40	30	12.38	30	19.50	30	21.16	British	Chile Steamship Co	430.6	55.4	15.0	Tocopilla	Tampico	Ballast		7,691	4,723
Buenos Aires	29	19.58	30	13.00	30	21.15	30	21.15	Swedish	Johnson Line	410.0	56.0	25.0	Portland	Scandinavia	General	7,664	7,591	5,661
H.M.S. Curlew	30	8.00	1	7.08	1	12.53	3	9.50	British	British Navy	425.0	43.6	16.0	San Diego	Bremuda	Ballast			
Eastern Knight	30	23.30	1	7.58	1	15.22	1	16.55	American	Colombia Pacific Shipping Co	415.1	55.7	26.6	Portland, Oreg	New York	Lumber, general	8,229	7,643	5,657
Mantaro	1	4.55	1	9.18	1	16.45	6	19.05	Peruvian	Peruvian Line	367.3	46.0	21.0	Callao	Cristobal	General	2,763	4,838	2,959
James McGee [1]	1	6.00	1	9.33	1	18.05	1	18.05	American	Standard Oil Co. of N. J	409.1	63.2	23.0	San Pedro	New York	[14]	14,734	10,964	7,909
Walter Jennings [1]	1	10.30	1	11.33	1	19.15	1	19.15	American	Standard Oil Co. of N. J	409.2	63.2	29.6	San Pedro	New York	Crude oil	16,000	11,037	7,995
Willhilo	1	4.59	1	11.43	1	20.30	1	20.30	American	Williams Steamship Co	434.3	57.7	23.0	Los Angeles	New York	[15]	8,496	7,983	5,882
F. Q. Barstow [1]	1	12.00	1	12.53	1	21.55	1	21.55	American	Standard Oil Co. of N. J	500.0	68.0	29.0	San Pedro	New York	Crude oil	14,833	10,530	7,604
Delagoa Maru	1	6.20	1	13.15	1	23.05	1	23.05	Japanese	Nippon Yusen Kaisha	420.0	56.0	19.0	Hongkong	New York	[16]	4,802	7,247	5,171
W. S. Rheem [1]	1	12.10	1	13.31	2	0.40	2	0.40	American	Standard Oil Co. of N. J	500.0	68.2	29.6	Los Angeles	Baltimore	Crude oil	15,000	11,224	7,860
Agwisun [1]	1	19.00	2	8.03	2	15.35	2	15.35	American	Ward Line	429.3	59.2	27.0	San Pedro	Baltimore	Crude oil	10,236	7,612	5,402
J. A. Moffett, Jr. [1]	2	11.00	2	11.51	2	21.15	2	21.15	American	Standard Oil Co. of N. J	499.1	63.1	29.6	San Pedro	New York	Crude oil	15,000	11,037	7,995
Santa Teresa	1	23.45	2	13.05	2	19.15	2	20.05	American	Grace Line	360.2	51.6	22.8	Talcahuano	New York	General	2,660	5,726	4,086
Devolente [1]	2	3.25	2	14.20	2	22.00	2	22.44	American	Beacon Oil Co. of Boston	435.0	56.0	27.0	Los Angeles	Boston	Crude oil	10,000	7,452	5,151
Haarlem	2	17.15	3	6.30	3	14.10	3	23.44	Dutch	Royal West India Mail	361.6	50.0	22.0	Talcahuano	Amsterdam	[17]	4,815	4,759	3,660
Pennsylvanian	2	20.30	3	6.55	3	14.25	3	14.25	American	American-Hawaiian Line	497.7	53.7	20.0	Los Angeles	Boston	General	3,200	7,107	4,916
T. J. Williams [1]	3	1.30	3	7.35	3	15.30	3	15.30	American	Standard Oil Co. of N. J	465.4	60.2	29.0	San Pedro	New York	Crude oil	11,000	8,585	6,087
Balboa	3	6.00	3	8.27	3	15.13	7	23.50	Colombian	Compania Costernia Colombia	190.0	29.1	12.0	Tumaco	Cartagena	General	171	737	335
Lewis Luckenbach	3	5.45	3	8.06	3	16.20	3	16.20	American	Luckenbach Line	493.0	68.2	22.9	Portland	Boston	Lumber, general	6,122	11,487	8,762

[1] Tanker. [11] Dredge. [12] Motor ship. [13] Nitrate, borate, cotton, wool. [14] Crude oil and cement. [15] General, canned goods, hay, and lumber. [16] Wood, oil, porcelain, graphite, tea, bristles, and general. [17] Nitrate, bora, coffee, tagua.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Melville Dollar.	3	9.00	3	9.37	3	18.05	3	22.25	American...	Dollar Line.....	429.0	55.2	26.0	Vancouver....	Baltimore.....	Lumber, general.	6,000	7,581	5,519
Alvarado.....	3	13.25	3	14.28	3	21.30	4	19.30	British.....	Pacific Steam Navigation Co....	303.0	43.0	15.6	Guayaquil....	New York....	General.....	453	2,844	1,748
Beacon Light [1].	3	14.05	3	14.43	3	23.15	4	6.18	American...	Beacon Oil Co.....	435.0	56.0	27.6	San Pedro....	Boston.....	Crude oil.....	9,750	7,481	5,119
Mabriton.....	3	14.15	3	14.57	3	23.59	3	23.59	British.....	R. Champan & Son.....	412.6	55.5	28.0	Portland.....	Antwerp.....	Wheat.....	9,868	6,823	4,797
San Tiburcio [1].	3	12.25	4	6.37	4	13.52	4	13.52	British.....	Anglo-Saxon Petroleum Co.....	413.0	53.4	24.4	San Francisco.	London.....	Gasoline.....	7,613	5,997	4,069
Australien [1] [2]...	3	19.10	4	7.31	4	15.10	4	17.45	Danish.....	East Asiatic Co.....	410.0	55.0	27.10	San Francisco.	Dublin.....	([15])	8,750	7,031	5,338
Frederick R. Kellogg [1]....	3	20.45	4	7.57	4	17.30	4	17.30	American...	Pan-American Pet. & Transp. Co	425.8	57.0	28.0	San Pedro....	New Orleans..	Crude oil.....	9,543	7,178	4,962
William Rockefeller [1].....	4	1.00	4	8.53	4	18.05	4	18.05	American...	Standard Oil Co. of N. J.....	554.9	75.3	30.3	San Pedro....	New York....	Crude oil.....	19,288	14,785	10,313
Alameda [1].....	2	5.10	4	10.20	4	18.40	4	18.40	American...	Standard Oil Co. of N. J.....	430.0	58.2	26.0	Los Angeles...	New York....	Crude oil.....	9,000	7,425	5,356
O-8 [13].....	.....	.....	4	10.28	4	17.25	.....	.....	American...	U. S. Navy.....	175.0	16.4	.....	Balboa.....	Coco Solo.....	.....	.....	.....	.....
Harold Walker [1]	4	12.25	4	13.08	4	21.00	4	21.00	American...	Pan-American Pet. & Transp. Co	430.0	58.2	27.6	San Pedro....	New Orleans..	Crude oil.....	10,700	6,973	4,658
Steelore.....	4	4.51	4	15.21	5	17.35	5	17.50	American...	Ore Steamship Corporation.....	550.3	72.2	32.2	Cruz Grande..	Baltimore.....	Iron ore.....	20,000	15,551	4,297
Edward L. Doheny, Jr. [1]....	4	19.50	5	6.03	5	17.45	5	17.45	American...	Pan-American Pet. & Transp. Co.	467.6	62.7	29.3	San Pedro....	New Orleans..	Crude oil.....	13,122	9,655	7,166
W. M. Irish [1]..	4	23.24	5	7.47	5	18.20	5	18.20	American...	Atlantic Refining Co.....	435.0	56.0	27.0	San Pedro....	Philadelphia..	Gasoline.....	9,465	7,392	5,453
Westmoreland..	5	4.50	5	8.12	5	19.05	5	21.30	British.....	Federal Line.....	473.0	60.1	24.8	Auckland.....	London.....	([18])	6,298	10,385	7,550
Mevania [1].....	5	9.30	5	10.14	5	19.34	6	6.00	American...	Malston Co., Inc.....	425.8	57.0	27.0	San Pedro....	New York....	Crude oil.....	10,520	7,485	5,216
Tongking.....	5	20.40	6	6.23	6	14.25	6	15.55	Danish.....	East Asiatic Co.....	410.0	55.2	27.0	Portland.....	Copenhagen...	([17])	7,895	7,013	5,317
John D. Archbold [1].....	5	23.40	6	8.12	6	16.30	6	16.30	American...	Standard Oil Co. of N. J.....	554.9	75.3	31.0	San Pedro ...	New York....	Crude oil.....	19,490	14,785	10,313
Laurel Branch..	6	6.45	6	8.26	6	17.45	6	20.58	British.....	F. and W. Ritson.....	360.0	46.0	23.0	([14])	Liverpool.....	([18])	5,184	4,182	3,047
Sutorpco.....	6	11.00	6	12.00	6	19.35	6	19.35	American...	Transmarine Corporation.....	324.0	46.2	25.0	Aberdeen.....	New York....	Lumber, copper.	4,000	3,984	2,612

[1] Tanker. [2] Motorship [13] Submarine. [14] West coast South America. [15] Wheat, barley, canned fruit. [16] Frozen meat and general. [17] Barley wheat, and canned goods.
[18] Nitrate, sugar, and barley.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
September 30	Pastores.....	United Fruit Co.....	Port Limon.
October 2....	Ulua.....	United Fruit Co.....	New York via Habana.
October 3....	Saramacca.....	United Fruit Co.....	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
September 30	Pastores.....	United Fruit Co.....	New York via Habana.
October 1...	Zacapa.....	United Fruit Co.....	Bocas del Toro.
October 3...	San Benito	United Fruit Co.....	Boston via Limon.

[1] Tanker.

* Other than ships passing through the Canal.

(Continued on page 152, column 2.)

Jugo-Slav Vessels Using Canal.

The steamship *Izgled*, of Jugo-Slav registry, transited the Canal from the Atlantic to the Pacific, on September 11, 1923, carrying 6,300 tons of cement from Spalato, Dalmatia, to Antofogasta, Chile. This is the second vessel flying the Jugo-Salv flag to use the Panama Canal, the first having been the *Prvi*, which passed through the Canal, July 9, 1920, carrying 4,025 tons of coal from Newport News to Arica, Chile, and returned on August 25, 1920 with 4,300 tons of nitrates shipped from Iquique to Hampton Roads.

Pacific-Argentine-Brazil Line to Suspend Passenger Service.

The agents at the Panama Canal of the Pacific-Argentine-Brazil Line operating Shipping Board steamers between the west coast of the United States and the east coast of South America via Panama and Porto Rico have advised that the combined passenger and freight steamers, *President Harrison* and *President Hayes* are to be withdrawn from the service upon the completion of their present voyages, and will be replaced by cargo vessels.

The steamship *President Hayes* left Cristobal for the east coast of South America on October 7th and is due at Cristobal on the return voyage on December 1st. The steamship *President Harrison* cleared from Cristobal for San Francisco on October 11th.

These two steamers are included in the 7 combination passenger and freight steamers recently sold by the United States Shipping Board to the Dollar Line for an around-the-world service.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended October 8:

Steamships *Panama*, true up L. P. valve, starboard engine, to fit packing; re-babbitt journal caps of steering engine; repair water-service pipes, main engine, drain from galley in upper coal bunkers; drain from dynamo, fire tools, cleat on forecastle head, bulkhead between Engineer's wash room and linen locker, wooden coamings No. 1 and No. 2 between deck hatches, rail, hatch battens, sun screen, deck gate, and fountain block No. 3 hatch; connect port and starboard fireroom ventilators with upper coal bunkers; scale and paint bottom bunkers; install guard bars for midship side ports, main deck; renew main mast shrouds; recanvass top of boat deck house as directed; repaint name boards on pilot house; install drains to window pockets; repair coffee urn and kitchen valves, etc.; *Radnor*, line out H. P. and L. P. guide slippers; repair and test 6 feed-water-heater coils; repair hot-well section and main feed line, etc.; *Clement Smith*, manufacture brass gear; install spare water end of feed pump and repair throttle valve for same, etc.; tug *Porto Bello*, overhaul towing engine, steering chains and rudder chains; scale boilers; repair rail, boiler valves, fuel-oil pumps, sanitary pump, oil heaters, wood work in Master's room and fireroom bulkhead; make new H. P. valve and bore valve chest; repair windlass, dogs on deck-house doors and covers for fore peak and water tanks, etc.; steamships *Moerdyk*, manufacture 4 piston rings for H. P. cylinders; renew rivets and electric weld in boiler as directed; *Salvador*, install new cylinders and clutch on winch and straighten shaft for same; repair exhaust pipe for windlass, blocks, galley scupper and ice hooks, etc.; *Mantaro*, *Dinnamare*, *Aconcagua*, *Potosi*, *General O. H. Ernst*, launch *Patrol* and tug *Favorite*, minor repairs.

The following vessels were at the Balboa shops for repairs during the week ended September 24:

Steamships *Alameda*, furnish services of diver and outfit to examine propeller; remove propeller blade, and install new one (propeller blade furnished by ship); *H. M. Flagler*, install two closed chocks; *Strombus*, repair fresh-water pump; renew two sections of main feed pipe; repair bilge line; *Hoxbar*, repair fuel-oil heaters, beam-plunger pump, dynamo engine, reducing valve, valve stem on L. P. engine;

furnish steam for firing up boilers; *Halsey*, repair telemotor steering-gear system; launch *Anna*, install two 30-gallon gasolene tanks; cableship *Guardian*, repair general service pump; steamships *Munplace*, bore H. P. cylinder; manufacture new bull and snap rings; reassemble; *Argosy*, remove high-speed gear and pinions; install new gears and pinions in main turbine; miscellaneous minor repairs to dynamo, fuel-oil pump, sanitary pump, deck winches, windlass, refrigerating machinery, voice tubes, telemotor, lifeboat, and cargo-handling gear.

PREVIOUSLY REPORTED.

Floating caisson *No. 1*, dock and undock; routine repairs; barge *No. 138*, dock and undock; deck alterations and general repairs; dredge *Paraiso*, dock and undock; manufacture and install additional pontoons; submarines *O–7*, *O–8*, and *O–9*, routine docking repairs; steamship *Colon*, reboilering, general repairs and reconditioning; Colombian coast guard cutter *No. 3*, general repairs; launch *L–55*, general repairs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 6, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Zacapa	United Fruit Co	September 30.	October 1	102	145
Jason	Royal Netherlands W. I. Mail	September 30.	October 1	90	.....
El Kantara	Messageries Maritimes Co.	September 30.	October 1	20	.....
Mantaro	Peruvian Line	October 1	October 6	2,763	152
Gen. O. H. Ernst	Panama Railroad Steamship Line	October 2	October 6	150	123
Ulua	United Fruit Co	October 2	October 3	166	24
Haarlem	Royal Netherlands W. I. Mail	October 3	October 3	238	30
Dinnamare	La Veloce Line	October 3	October 4	132	.....
Balboa	Compania Costernia Colombia	October 3	.....	156	.....
Carrillo	United Fruit Co	October 3	October 4	213	65
Saramacca	United Fruit Co	October 3	October 3	613	2
San Benito	United Fruit Co	October 3	October 3	9	52
Alvarado	Pacific Steam Navigation Co	October 3	October 4	143	.....
Panama	Panama Railroad Steamship Line	October 4	October 9	2,307	.....
Sonora	Cie. Gle. Transatlantique	October 4	October 4	130	.....
Lima	Johnson Line	October 4	October 4	179	.....
Santa Malta	Grace Line	October 5	October 6	459	93
Amassia	Hamburg-American Line	October 6	October 6	10	72

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 6, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Strombus	Anglo-Saxon Petroleum Co	September 30.	October 2	7,800	.....
Corinto	Pacific Mail Steamship Co	September 30.	September 30.	.....	67
Willhilo	Williams Steamship Co	October 1	October 1	4	.....
Delagoa Maru	Nippon Yusen Kaisha	October 1	October 1	19	.....
Alvarado	Pacific Steam Navigation Co	October 3	October 3	2	.....
Lima	A. Johnson & Co	October 4	October 5	232	10
Santa Maria	Santa Maria Steamship Co	October 5	October 6	10,500	.....
Argonne	U. S. Navy	October 6	October 8	2	.....
President Hayes	U. S. Shipping Board	October 6	October 7	6	.....
Salvador	Pacific Steam Navigation Co	October 6	October 7	6	.....

Executive Order.

Amending the Executive Order of February 6, 1917, Relating to the Exclusion and Deportation of Undesirable Persons From the Canal Zone.

By virtue of the authority vested in me by the provisions of the Act of Congress approved August 21, 1916, entitled "An Act Extending Certain Privileges of Canal Employees to Other Officials on the Canal Zone and Authorizing the President to Make Rules and Regulations Affecting the Health, Sanitation, Quarantine, Taxation, Public Roads, Self-Propelled Vehicles and Police Powers on the Canal Zone and for Other Purposes, Including Provision as to Certain Fees, Money Orders and Interest Deposits," I do hereby amend Sections 1 and 2 of the Executive Order of the President, dated February 6, 1917, relating to the exclusion of undesirable persons, to read as follows, to wit:

SECTION 1. The Governor of The Panama Canal is hereby empowered to exclude or cause to be excluded the following classes of persons from the Canal Zone: idiots, imbeciles, feeble-minded persons, the insane, persons who have been insane within five years previous to their attempted entry into the Canal Zone, epileptics, paupers, criminals, professional beggars, gypsies, persons of notoriously bad character, persons whose presence would be a menace to the public health or welfare of the Canal Zone, persons who may be suffering from a loathsome, dangerous or contagious disease, persons who have been convicted of a felony, anarchists, persons whose purpose it is to incite insurrection, persons who are liable to become a public charge, and all others whose presence in the judgment of the Governor would tend to create public disorder or in any manner impede the prosecution of the work of opening the Canal or its maintenance, operation, sanitation or protection.

The cost of excluding or deporting persons hereunder shall be a charge against the person or interest responsible for the entry of the undesirable person into the Canal Zone, the collection thereof to be enforced in the manner hereinafter provided unless the same shall be paid out of the bond or undertaking or deposit hereinafter designated. In cases of deportation in which no person or interest can be held responsible for the cost hereunder or where such cost is not paid out of the bond or undertaking or deposit hereinafter provided for, the cost of such deportation shall be paid from the appropriations made for the maintenance, operation, sanitation and protection of the Canal.

Any person liable to be excluded because likely to become a public charge or because of physical disability other than tuberculosis in any form or any loathsome, contagious or dangerous disease may, nevertheless, be admitted in the discretion of the Governor or any authority subordinate to him upon giving to The Panama Canal of a suitable bond or undertaking to be approved by the Governor in such amount and containing such conditions as he may prescribe to indemnify The Panama Canal against loss on account of the conditional admission of such person. In lieu of such bond or undertaking such person may deposit in cash with the Governor such amount as may be required. Admission of such person shall be a valid consideration for the giving of such bond or undertaking or cash deposit. The Panama Canal shall be entitled to maintain suit on any such bond or undertaking for all damages sustained if the conditions thereof are broken, and it shall have the right to retain from any cash deposit made in lieu of such bond or undertaking such damages as The Panama Canal may sustain by reason of a violation of the terms of such deposit.

SEC. 2. Any person falling within any one of the excluded classes mentioned in the foregoing section who desires to cross the Canal Zone in order to reach his final destination may be allowed to effect such transit in the custody of a representative of The Panama Canal authorities, provided the owner or master of or person or interest controlling the vessel upon which such person arrives at port in the Canal Zone will agree in writing that if such person is rejected at his final destination and returned to the Canal Zone his deportation therefrom shall be at the expense of the owner or interest controlling the vessel, in which case the cost of the deportation shall be enforced against the owner or interest in the manner prescribed by the laws of Congress and the provisions of this Executive Order; and provided further that any person liable to be denied the right of transit across the Canal Zone because likely to become a public charge or because of physical disability other than tuberculosis in any form or any loathsome, contagious or dangerous disease may, nevertheless, in the discretion of the Governor or any authority subordinate to him, be permitted to transit the Canal Zone conditionally upon the giving to The Panama Canal of a suitable bond or undertaking to be approved by the Governor in such amount and containing such conditions as he may prescribe to indemnify The Panama Canal against loss on account of the conditional transit of such person across the Canal Zone. In lieu of such bond or undertaking such person may deposit in cash with the Governor such amount as may be required. Permit to transit the Canal Zone in such case shall be a valid consideration for the giving of such bond or undertaking or cash deposit. The Panama Canal shall be entitled to maintain suit on any such bond or undertaking for all damages sustained if the conditions thereof are broken, and it shall have the right to retain from any cash deposit made in lieu of such bond or undertaking such damages as The Panama Canal may sustain by reason of a violation of the terms of such deposit.

SEC. 3. This Order shall take effect thirty days from and after this date.

CALVIN COOLIDGE

THE WHITE HOUSE,
September 13, 1923.

[No. 3903.]

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 26, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Arrive Cristobal.	Leave Cristobal.	Arrive New York.
Panama	.....	.....	October 9.....	October 16.
Cristobal	October 5.....	October 13....	October 19....	October 26.
General W. C. Gorgas	October 15....	October 24....	October 29....	November 6.
Panama	October 25....	November 2..	November 9..	November 16.
Cristobal	November 5..	November 13.	November 19.	November 26.
General W. C. Gorgas	November 15.	November 24.	November 29.	December 7.
Panama	November 24.	December 3...	December 9...	December 16.
Cristobal	December 5...	December 13..	December 19..	December 26.
General W. C. Gorgas	December 15..	December 24..	December 29..	January 6.
Panama	December 24..	January 1.....	January 9.....	January 16.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Prices of Scrap.

THE PANAMA CANAL, SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 30, 1923.

HEADS OF DEPARTMENTS AND DIVISIONS:

Effective September 15, 1923, the following prices will be allowed by the Supply Department for scrap turned in by the various departments and divisions of The Panama Canal. The selling prices to departments and divisions, employees, and to individuals and companies are also indicated:

Kind of scrap.	Credit to be allowed divisions.	Issue and sale price.	
		To departments of The Panama Canal.	To employees and individuals and companies.
	Short ton.	*Short ton.*	*Short ton.*
Cast iron, including car wheels	$5.00	$6.00	$25.00
Miscellaneous wrought iron and steel	3.00	4.00	20.00
Rail, scrap, grade No. 4	3.00	4.00	20.00
Rail, relaying, grade No. 2	17.00	18.00	35.00
Rail, relaying, grade No. 3	9.00	10.00	30.00
	Cwt.	*Cwt.*	*Cwt.*
Aluminum	8.00	9.00	25.00
Babbitt	2.00	3.00	10.00
Bags and burlap	.50	1.00	3.00
Brass, mixed	4.00	5.00	10.00
Brass borings and turnings	4.00	5.00	10.00
Bronze screening	6.00	7.00	15.00
Canvas	.50	1.00	.....
Copper, mixed	6.00	7.00	15.00
Cork	1.00	2.00	6.00
Hose	.50	1.00	6.00
Lead	1.00	2.00	8.00
Leather	.50	1.00	3.00
Pewter	10.00	11.00	50.00
Rags	.50	1.00	5.00
Rope	.50	1.00	5.00
Rubber	.50	1.00	6.00
Tool steel	5.00	6.00	25.00
Zinc	1.00	2.00	5.00

R. K. MORRIS,
Chief Quartermaster.

Official Circulars.

Monthly Rates of Pay Based on Rates in United States.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 3, 1923.

To all concerned.—In the calculation of monthly rates for The Panama Canal service which are based exactly on rates paid for similar employment in the United States it has been the practice to make the calculation to the exact cent and establish the rate exactly as indicated.

This has resulted in the use of a number of monthly rates ending in odd cents, which has been found to add considerably to the work of making payroll and leave adjustments. In order to avoid this, monthly rates will in future be established at the even dollar. Calculations will be made as before, but if the result carries odd cents amounting to 50 cents or more the rate will be established at the dollar next above. In case the odd cents are less than 50 cents they will be dropped.

Rates now in effect will not be changed, but in subsequent adjustments the practice outlined above will be followed.

M. L. WALKER,
Acting Governor.

Silver Employees to Live Near Work.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., October 3, 1923.

TO HEADS OF DEPARTMENTS AND DIVISIONS:

It has been brought to the attention of this office that a number of apartments for silver employees are vacant at present, for which there are no applications on file with the District Quartermasters.

Previous circulars have called attention to the policy which requires silver employees to live near their work when quarters are available. Silver employees working at line locations from Gatun to Miraflores, inclusive, are required to file applications for Canal quarters within 5 days after being employed, and must occupy the quarters within 10 days after assignment is made, or the employee discharged.

This matter should be brought to the attention of all silver employees, in order that those who are not now occupying Canal quarters may file applications at once for such quarters.

M. L. WALKER,
Acting Governor.

Reduced Fare Between Cristobal and Havana.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., October 4, 1923.

To all concerned.—The Agent of the Pacific Steam Navigation Company informs this office that a reduction of 25 per cent in the fare on the steamships of their Company between Cristobal and Cuba will be allowed employees of The Panama Canal and the Panama Railroad Company stationed on the Isthmus, including the members of their families.

This reduction will be effective by the steamers *Ebro* and *Essequibo* on the voyage to New York, and also by the *Oroya*, *Oropesa*, *Orcoma*, *Orita*, *Oriana* and *Ortega*, which call at Habana on their voyages to Europe.

C. A. MCILVAINE,
Executive Secretary.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 146.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
October 3	San Benito	United Fruit Co.	Boston via Habana.
October 3	Sixaola	United Fruit Co.	Colombian ports.
October 3	Carrillo	United Fruit Co.	New York via Kingston.
October 4	Zacapa	United Fruit Co.	Bocas del Toro.
October 4	Panama	Panama Railroad Steamship Line.	New York via Haiti.
October 6	Amassia	Hamburg-American Line.	Puerto Barrios.

*DEPARTURES.

Date.	Vessel.	Line.	For—
October 3	Ulua	United Fruit Co.	Port Limon.
October 4	Sixaola	United Fruit Co.	New York via Kingston.
October 4	Carrillo	United Fruit Co.	Colombian ports.
October 4	Saramacca	United Fruit Co.	New Orleans via wayports.
October 4	Zacapa	United Fruit Co.	New Orleans.
October 6	Amassia	Hamburg-American Line.	Cartagena.

PORT OF BALBOA.

September 30	Strombus [1]	Anglo-Saxon Petroleum Co.	San Pedro.	October 2	Strombus [1]	Anglo-Saxon Petroleum Co.	San Pedro.
October 5	Santa Maria [1]	Union Oil Co. of California	Port San Luis.		Santa Maria [1]	Union Oil Co. of California	Port San Luis.

[1] Tanker.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., October 17, 1923. No. 10.

Traffic Prospects.

With the idea of assuring adequate provision to continue to handle traffic with maximum expedition, The Panama Canal is seeking information relative to probable changes in the quantity of shipping routed by way of the Canal. The increases in the past year made necessary some increases in the force of lock operators and pilots, and the work of maintenance must be scheduled so as to cause minimum interference with traffic. Regardless of the fact that the Canal will not be operating at full capacity for some years to come, the advantages of being able to adjust conditions to fit anticipated traffic are obvious.

The Acting Governor has requested the cooperation of steamship operators and their agents at the Canal in supplying such information as they can on their probable dispatches of vessels via the Canal, and as to prospects in trade conditions which will affect traffic. Replies are treated as confidential in so far as they relate to the business plans of the individual firms.

Owners and operators have been requested, through a letter under date of October 1, 1923, to make predictions as to their use of the Canal during the year 1924. The local agents are requested to submit monthly reports of immediate prospects. Both are asked for any comment on general conditions. The information which they furnish is to be supplemented by reports in shipping and trade publications, and information as to trends of traffic obtainable from the records of past traffic.

The first questionnaire to local agents was sent out on September 21, 1923. Their replies indicated substantially the same quantity of traffic in October as in August, approximately 450 to 460 vessels. On the basis of their replies and other data, the Bureau of Statistics of the Canal made up a summary of the figures furnished and compiled the first of the reports on traffic prospects. From it the following is quoted, as indicating the scope to be included:

None of the agencies have anything to say concerning general trade conditions, with the exception of one, which reports: "Might probably be a decrease in coast to coast traffic owing to a surplus of lines operating." While it may be true that the intercoastal trade is at present over-tonnaged, several new lines have been organized to enter this trade, and it may be some months before any of the weaker lines are crowded out. The total volume of cargo handled seems more likely to increase than to decrease, and there is no reason to believe that this trade has yet reached its maximum development, if oil cargoes are excluded.

There were no indications of a decrease of oil shipments up to the end of August. In that month the tonnage of oil was the largest on record, 849,308 tons, as compared with 791,236 tons in July, 835,104 in June, and 845,201 in May. These are all figures for shipments from Pacific to Atlantic.

The nitrate trade is also keeping up well. The American Consul General at Valparaiso in a report dated July 23, 1923, says that the Nitrate Producers Association estimate that 2,500,000 tons of nitrate will be exported from Chile during the year

ending June 30, 1924. Practically all of this Chilean nitrate, with the exception of small shipments to ports on the Pacific, passes through the Panama Canal. The tonnage through the Canal during the fiscal year 1923 was 1,664,751. If the estimate of the Association is correct the tonnage for the current year will show no falling off. The Consul General at Valparaiso also reported that copper exports from Chile during the calendar year 1923 are expected to exceed the best pre-war year. From January to June they totaled 80,000 tons. If there is a good market for Chilean copper, the same is probably true of Peruvian copper.

Grain shipments from the west coast of the United States and Canada, to Europe, will probably be less than in previous years owing to lessened European demand. Shipments of wheat in July and August, 1923, totaled 51,572 tons, as compared with 158,092 tons during the same months of 1922; and shipments of barley were 54,097 tons as compared with 79,289 tons. However, the heaviest grain shipments will come from September to December, and it may be that the present deficit will be made up by the shipment of a greater proportion of the western Canadian crop through Vancouver. The capacity of Vancouver grain elevators is being increased from 1,250,000 bushels to 3,500,000 bushels, with ample berthing space and improved facilities. According to *Lloyd's List* for August 21, 1923, wheat exports from Vancouver to the United Kingdom and the Continent were 891,642 bushels in 1921, and 10,783,728 bushels in 1922. As indicating the lessened demand for American grain in Europe, *Nauticus* for September 8 reports that exports of grain from Montreal to Europe, prior to September 2, totaled 68,826,505 bushels, as against 81,668,959 bushels last year.

The Japanese earthquake should result ultimately in heavy shipments of building materials, etc., from the Atlantic seaboard. *The Shipping Register* of September 8, 1923, says that according to a New York news item, steamship men there predict that 50 additional steamers will be required in the Oriental trade within the next few weeks to carry structural steel and other supplies to Japan for reconstruction work. Later comment is to the effect that Japanese demand will not be felt immediately, but that heavy shipments will ultimately be made.

The first Canadian intercoastal service was inaugurated last summer. It employs at present only one steamer, but there are possibilities of development similar to those in the United States intercoastal trade, although of course on a much smaller scale.

The development of a possible new trade through the Canal is foreshadowed by the report (in *Nauticus* for September 8) that the Osaka Shosen Kaisha proposes to build five 7,500-ton steamers of 15-knot speed for the transport of emigrants from Japan to Brazil. Distances from Japan to Brazil via Panama and via Good Hope are approximately the same; trade conditions will govern the choice of route.

All of the information at hand justifies the belief that traffic through the Canal will at least maintain its present volume (13 or 14 ships a day commercial) for some months to come. California oil is the most uncertain element, and there is nothing to indicate an early decline of shipments.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended October 15:

Steamship *Ulysses*, sweep tubes, main boilers; renew leaky rivets in forepeak tanks and install patches on bow; complete scaling of hatch coamings and doors; repair heater pipe; repair 6 port hole screens, etc.; motor ship *Laura C. Hall*, dock, clean, and paint bottom; rebabbit shaft bearings; renew planks in bottom, plug worm holes, and caulk bottom as directed; make minor engine repairs, etc.; steamship *Bidwell*, repair hull as directed by surveyor; service of diver, etc.; *Cristobal*, repair bilge suction line, bulkhead at hawse pipe casting in chain locker, between deck scuppers at oil filling line, sink drains and screen door: continue calking decks as directed; install gangway supports; straighten 6 rail stanchions; scale and cement wash fore peak tanks, etc.

Minor repairs—Steamships *Ares*, *Pellerin de Latouche*, *Mineola*, *Suelco*, and launch *Patrol*.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal, or touching at either of the terminal stations should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

United American Lines Inaugurate New Intercoastal Service.

The United American Lines, in conjunction with Houlder, Weir, and Boyd, have inaugurated an intercoastal service, which will employ a fleet of 12 or more fast ships averaging more than 10,000 tons deadweight carrying capacity, with weekly sailings from New York and Baltimore to Los Angeles, San Francisco, Portland, Seattle, and Tacoma. The first steamer in this service was the *Sudbury*, which passed through the Canal southbound on September 21, and the second the *Kermit* which went through in the same direction on September 30.

This service is entirely distinct from the American-Hawaiian Line's intercoastal service, which was formerly operated in alliance with the United American Lines.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 13, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Edgemoor	U. S. Army	October 7	October 13	3,951	
Camden	United Fruit Co	October 7	October 8	8,841	
Abangarez	United Fruit Co	October 7	October 7	26	27
Ulua	United Fruit Co	October 7	October 7	21	80
Salvador	Pacific Steam Navigation Co	October 7	October 13	265	1,280
Lochgoil	Royal Mail Steam Packet Co	October 8	October 9	357	239
Venezuela	Pacific Mail Steamship Co	October 8	October 8	196	135
P. de Latouche	French Line	October 8	October 11	353	
La Paz	Pacific Steam Navigation Co	October 8	October 9	178	35
Toloa	United Fruit Co	October 9	October 10	370	30
President Harrison	U. S. Shipping Board	October 10	October 11	22	
Santa Luisa	Grace Line	October 10	October 11	2	
St. Mihiel	U. S. Army	October 10	October 13	1,184	1
Oranje-Nassau	Royal Netherlands W. I. Mail	October 10	October 10	242	
Tivives	United Fruit Co	October 10	October 11	93	67
Turrialba	United Fruit Co	October 10	October 10	516	
San Bruno	United Fruit Co	October 10	October 11	12	501
Dakotian	Leyland Line	October 10	October 12	807	318
Chaumont	U. S. Navy	October 11	October 12	92	
Orita	Pacific Steam Navigation Co	October 11	October 12	29	27
Nevada	French Line	October 12	October 12	48	
Adalia	Hamburg-American Line	October 12	October 13	83	1
Ulysses	Panama Railroad Steamship Line	October 12		12,030	
Colombia	Pacific Mail Steamship Co	October 13	October 14	231	
Cristobal	Panama Railroad Steamship Line	October 13		2,351	
Bayano	Elders & Fyffes Line	October 13	October 13	20	
Ares	Royal Netherlands W. I. Mail	October 13		121	

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 13, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Venezuela	Pacific Mail Steamship Co	October 7	October 7	345	
Capsa	Anglo-Saxon Petroleum Co	October 7	October 8	7,754	
Remus	A. O. Lindvig	October 7	October 8	180	
Eelbeck	U. S. Shipping Board	October 11	October 11	300	
Atrato	Alfred Sharp	September 28			93
Willpolo	Williams Steamship Co	October 9	October 14	208	
Borga	Norway-Pacific Line	October 13	October 14	473	

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 13, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Clement Smith [2]	5	6.40	7	6.28	7	13.43	7	14.46	American...	Oil Transport Co.	431.0	59.0	20.0	Fall River	San Pedro	Ballast		8,097	5,532
Agwismith [2]	6	23.50	7	6.30	7	14.13	7	15.14	American...	Atlantic Gulf & W. I. S. S. Co.	499.9	68.1	19.6	New York	Los Angeles	Ballast		10,600	7,447
Pennsylvania Sun [1]	7	3.28	7	7.20	7	14.49	7	19.26	American...	Sun Oil Co.	480.5	66.0	23.0	New York	Los Angeles	Ballast		9,325	6,383
Wheaton	7	6.45	7	7.35	7	15.44	7	16.59	American...	A. E. Mittnacht (S. B.)	415.0	53.7	23.8	New York	Los Angeles	(5)	1,396	7,060	4,904
K. I. Luckenbach	7	6.50	7	8.28	7	16.40	7	21.52	American...	Luckenbach Line	446.0	57.0	27.0	Mobile	Los Angeles	General	7,200	8,552	6,236
M. S. Dollar	7	6.55	7	8.50	7	16.45	7	22.25	British	Dollar Line	475.0	61.0	19.4	Baltimore	San Pedro	General	4,770	10,116	7,680
Erie Maru	7	7.40	7	10.10	7	17.28	7	21.17	Japanese	Kokusai Kisen Kaisha	400.0	53.0	15.6	Baltimore	Grays Harbor	Ballast		5,977	4,305
Birmingham City	7	2.50	7	10.18	7	18.50	7	20.15	American...	U. S. Steel Products Co.	395.0	56.0	25.8	Philadelphia	Talcahuano	(4)	6,088	6,886	4,675
Canadian Spinner	7	7.55	7	10.55	7	19.12	7	20.13	British	Canadian Govt. Mer. Marine	400.0	52.4	16.0	Montreal	Sydney	General	700	5,871	4,094
Agwilake [2]	7	12.28	7	12.40	7	20.05	7	21.17	American...	Atlantic Gulf & W. I. S. S. Co.	468.3	62.7	21.0	New York	San Pedro	Ballast		9,802	6,957
Bethelridge [2]	7	12.45	7	12.55	7	20.40	8	8.02	American...	Walker & Daly (S. B.)	431.0	59.2	20.1	New York	Los Angeles	Ballast		7,819	5,076
It [3]	....	.....	7	8.15	7	10.49	....	.....	American...	E. H. Anclam	.....	.....	.....	Cristobal	Gatun Lake	Ballast	.....	1	1
Nevadan	8	0.55	8	6.28	8	13.53	8	14.52	American...	American-Hawaiian Line	368.6	55.2	24.6	Savannah	Seattle	General	4,800	5,671	3,627
Levant Arrow [1]	8	1.20	8	6.40	8	14.39	8	15.50	American...	Standard Transportation Co.	468.3	62.7	27.0	Sabine	Taku Bar	Petroleum	11,300	9,744	7,039
Wales Maru	8	4.50	8	7.40	8	15.47	8	21.05	Japanese	Kawasaki Steamship Co.	405.0	53.0	24.9	New York	Kobe	(7)	7,047	7,043	5,077
Atrato [3]	9–27	5.55	8	7.45	8	18.06	9	18.00	Colombian..	Alfred Thorp	100.0	24.6	8.0	St. Thomas	Buenaventura	Ballast		169	77
Dean Emery [2]	8	6.10	8	8.25	8	16.05	9	19.35	American...	Pan-American Petroleum Co.	429.3	59.0	19.6	Portland	San Pedro	Ballast		7,709	5,517
Tregenna	8	6.23	8	9.45	8	17.12	8	18.20	British	Hain Steamship Co.	400.0	52.3	23.0	Barry	Melbourne	General, case oil	4,331	5,734	4,060
Cape Henlopen [1]	8	9.50	8	10.20	8	17.57	8	19.06	American...	Cape Steamship Co.	434.8	56.2	26.0	New York	San Pedro	Ballast		7,425	5,202
Stockwell	8	11.35	8	11.50	8	19.05	8	21.06	British	Anchor, Brocklebank & Will Line	425.0	53.9	21.9	New York	Sydney	General	3,500	6,278	4,529
Ruby [2]	6	.....	8	12.40	8	14.05	....	.....	American...	E. J. Hooper	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	1	1
Clemons [2]	9–23	.....	8	12.40	8	14.03	....	.....	American...	G. Perino	.....	.....	.....	Cristobal	Gatun Lake	Ballast	.....	2	2
Invader [2]	....	.....	8	12.51	8	14.03	....	.....	American...	M. Reifcoski	.....	.....	.....	Cristobal	Gatun Lake	Ballast	.....	2	2
Motor Sailor	....	.....	8	12.40	8	14.03	....	.....	American...	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	2	2
Willpolo	8	16.50	9	6.20	9	14.15	14	11.43	American...	Williams Line	386.8	52.2	20.0	Baltimore	Los Angeles	General	3,571	5,680	4,080
Elston	8	21.55	9	6.12	9	15.23	9	16.18	American...	Barber Line (S. B.)	402.6	54.8	25.6	New York	Manila	General, case oil	7,516	6,929	5,216
Atlantic Sun [1]	9	5.45	9	6.58	9	15.35	9	21.39	American...	Sun Oil Co.	429.3	59.2	17.0	Chester	San Pedro	Ballast	.....	7,568	5,283
Edgar Bowling	9	6.28	9	8.00	9	16.24	10	4.30	American...	Garland Line	410.0	54.0	18.0	New York	Los Angeles	General, coal	3,885	6,567	4,909
Rid	9	6.50	9	9.22	9	17.12	9	19.47	British	W. R. Smith & Sons	420.5	54.5	24.0	New York	Fremont	General	4,890	6,362	4,722
Antietam [1]	9	8.30	9	10.00	9	17.43	9	19.17	American...	Antietam Steamship Co.	435.6	56.2	22.0	New York	San Pedro	Ballast	.....	7,425	5,094
Loongoil [4]	8	9.33	9	10.39	9	17.52	9	22.55	British	Royal Mail Steam Packet Co.	485.0	62.0	20.6	London	Vancouver	General	2,248	10,803	7,606
La Paz [4]	8	20.00	9	11.36	9	18.41	9	20.26	British	Pacific Steam Navigation Co.	406.0	54.0	21.2	Hamburg	Valparaiso	General	5,116	7,216	4,912
Acme [1]	10	6.4.	10	7.00	10	15.28	10	16.43	American...	Standard Transportation Co.	435.0	56.0	20.6	Providence	San Pedro	Ballast	.....	7,165	4,926
Charlton Hall	10	3.4.	10	10.20	10	18.13	11	2.09	American...	U. S. Steel Products Co.	400.0	50.0	27.0	New York	Seattle	(8)	6,833	5,715	4,161

[1] Tanker. [2] Launch. [3] Motor schooner. [4] Motor ship. [5] General, refrigerated. [6] Steel, general, and machinery. [7] Steel, rosin, phosphate, and cotton. [8] Steel rails, wire, bars, pipe and general.

Hahira [1]	10	10.12	10	10.35	10	17.27	10	23.15	American	Atlantic Refining Co	435.6	56.2	20.3	Philadelphia	San Pedro	Ballast		7,658	5,414
Luceric	10	6.55	10	11.25	10	19.45	10	21.15	British	Andrew Weir & Co	412.5	55.5	26.7	New York	Shanghai	General	7,887	6,913	4,866
Robert Luckenbach	10	7.05	10	12.50	10	20.04	10	21.15	American	Luckenbach Line	415.0	58.0	24.6	New York	Los Angeles	General	7,000	8,695	6,375
President Harrison	10	15.30	11	6.10	11	13.43	11	14.55	American	Swayne, Hoyt & Co., Inc. (S. B.)	502.0	62.0	24.10	Buenos Aires	San Francisco	General	3,596	12,031	8,495
Santa Luisa	10	20.00	11	7.48	11	14.30	11	15.50	American	Grace Line	360.2	51.6	24.0	New York	Talcahuano	General	2,838	5,694	3,975
Rimutaka	11	0.15	11	8.24	11	15.21	12	2.55	British	New Zealand Shipping Co	457.0	58.0	26.8	Liverpool	Auckland	General	6,018	9,201	6,961
David McKelvy	11	3.30	11	8.45	11	16.26	11	17.40	American	Tidewater Oil Co	430.0	59.2	19.6	New York	San Pedro	Ballast		7,629	5,393
Schwarzwald	11	8.23	11	11.10	11	18.47	11	20.22	German	Hamburg-American Line	399.6	54.2	20.0	Hamburg	Guayaquil	General	1,970	6,571	4,607
Tricentrol [1]	11	13.10	11	13.25	11	20.31	12	1.28	British	Trinidad Central Oil Co	407.4	52.2	21.0	Southampton	San Francisco	Ballast		6,046	4,326
Chaumont [9]	11	8.35	12	6.00	12	13.31	14	19.55	American	U. S. Navy	448.0	58.2	24.6	New York	San Francisco	[14]	264		
Sudawsonco	11	14.10	12	6.22	12	14.05	12	15.25	American	Transmarine Corporation	321.0	46.2	23.6	Port Newark	Seattle	General, iron	4,200	3,984	2,612
Eurana [1]	11	14.40	12	7.15	12	16.05	12	17.10	American	New York Ship Building Corp.	419.0	56.0	17.0	Baltimore	San Pedro	Ballast		6,989	4,976
Orita	11	17.05	12	7.16	12	15.00	12	16.07	British	Pacific Steam Navigation Co	485.4	58.2	22.9	Liverpool	Valparaiso	General	2,877	9,936	6,561
Shunko Maru	11	17.45	12	8.18	12	17.54	12	19.08	Japanese	Osaka Shosen Kaisha	425.0	53.0	29.0	New York	Yokohama	[15]	7,832	6,914	5,295
Mount Carroll	11	22.40	12	8.25	12	16.53	12	21.45	American	United American Line	440.3	57.2	23.0	New York	Los Angeles	General	5,200		
Wm. Boyce Thompson [1]	11	22.50	12	9.35	12	18.14	12	19.39	American	Sinclair Navigation Co	430.3	59.3	19.3	Baltimore	San Pedro	Ballast		7,789	5,562
Eldorado	12	1.55	12	9.36	12	18.40	12	23.55	American	Western Transport Co	245.6	42.0	18.10	New Orleans	San Francisco	[10]	2,557½	2,439	1,662
Hagood [1]	12	1.25	12	9.40	12	17.24	12	18.39	American	Cities Service Co	435.0	56.2	17.9	Boston	San Pedro	Ballast		7,426	5,094
Dillwyn [1]	12	6.40	12	10.45	12	19.30	12	21.00	American	Malston Steamship Co	435.0	56.0	18.0	Baltimore	San Pedro	Ballast		7,441	5,180
Robin Gray	12	8.45	12	10.47	12	20.34	13	8.05	American	Robin Line	424.8	55.2	28.6	Baltimore	Los Angeles	Steel, iron	9,615	7,472	5,542
Tustem [1]	12	11.38	12	12.50	12	21.11	12	22.23	American	Atlantic Refining Co	425.0	57.2	20.4	Newport News	Los Angeles	Ballast		7,204	4,768
Pacific	12	13.00	12	13.10	12	22.10	13	3.00	American	Argonaut Steamship Line	400.0	56.7	26.11	New York	San Francisco	Steel products	8,171	6,479	4,709
Nevada	12	2.30	13	6.06	13	13.45	13	14.52	French	French Line	418.0	56.0	25.0	Havre	Vancouver	General	3,388	7,500	5,298
Junin	12	5.15	13	6.30	13	14.43	13	15.45	British	Pacific Steam Navigation Co	391.5	50.0	21.0	Liverpool	Valparaiso	General	1,969	5,933	4,282
Republic	13	1.30	13	7.15	13	15.31	13	16.35	American	Chile Steamship Co	345.1	49.1	20.7	New York	Antofagasta	General	3,592	4,393	3,006
Sunoil [1]	13	6.10	13	8.39	13	16.10	13	20.30	American	Sun Oil Co	430.0	58.2	16.4	Chester	San Pedro	Ballast		7,439	5,209
Cape Ann [1]	13	6.33	13	9.48	13	16.45	13	18.05	American	Cape Steamship Co	425.8	57.0	21.6	New York	San Pedro	Ballast		7,484	5,216
Holger	13	9.15	13	10.20	13	17.48	13	18.44	German	Roland Line	423.5	53.2	24.0	Hamburg	Los Angeles	General	4,724		
Borga [10]	13	10.10	13	11.08	13	18.46	14	11.15	Norwegian	Peter Olsen	362.4	51.4	19.6	Christiania	San Pedro	General	3,700	5,242	3,706
Salvador	7	14.30	13	11.17	13	18.56	13	20.03	British	Pacific Steam Navigation Co	215.0	33.5	16.7	Cristobal	Champerico	General	1,281	1,270	735
Escoval [11]	12		13		13	8.25			Panaman	Ernesto Triana				Cristobal	Gatun Lake	Unknown		2	2
Frances [12]			13		13	8.27			American	C. L. Parker				Cristobal	Gatun Lake	Unknown		11	11
P. S. N. C. No. 23 [13]			13		13	8.27			American	C. L. Parker				Cristobal	Gatun Lake	Ballast		34	34

[1] Tanker. [9] Transport. [10] Motor ship. [11] Cayuca. [12] Launch. [13] Barge. [14] Navy and Marine Corps household goods and general navy cargo. [15] Oil, rails, sulphate of ammonia, wire rod, machinery, and wax. [16] Steel plates, cast iron, pipe, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Salvador	6	15.45	7	6.41	7	14.30	13	11.17	British	Pacific Steam Navigation Co	215.0	33.5	13.6	Champerico	Cristobal	General	265	1,270	735
President Hayes	6	15.30	7	8.05	7	15.52	7	16.55	American	Swayne, Hoyt & Co., Inc. (S. B.)	502.0	62.2	24.6	San Francisco	Buenos Aires	General	3,096	12,023	8,443
Moerdijk	7	1.30	7	8.13	7	17.30	11	15.10	Dutch	Holland-American Line	472.6	61.0	24.3	Seattle	Rotterdam	General	8,751	9,165	7,056
Halo [1]	7	10.45	7	11.44	7	19.25	7	23.35	American	Cities Service Transport Co	435.0	56.0	27.0	San Pedro	Boston	Crude oil	10,000	7,434	5,066
Gargoyle [1]	7	6.00	7	13.43	7	21.24	7	21.24	American	Vacuum Oil Co	425.0	57.2	27.2	San Francisco	Paulsboro	Lubricating oil	10,049	7,510	4,989
Bethore [1]	6	21.00	7	15.51	8	14.22	8	14.22	American	Ore Steamship Co	550.3	72.2	32.7	Cruz Grande	New York	Iron ore	19,300	15,476	4,354
Venezuela	7	4.30	8	6.36	8	15.20	8	22.05	American	Pacific Mail Steamship Co	380.0	48.6	22.3	San Francisco	New York	General	1,800	6,033	4,353

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Suelco	7	14.45	8	6.48	8	15.48	9	21.50	American	Submarine Boat Corporation	321.0	46.2	21.0	Anacortes	Newark	Lumber, copper	4,389	3,984	2,612
San Felix [1]	7	17.15	8	7.35	8	16.23	8	16.23	British	Anglo-Mexican Petroleum Co	530.0	69.4	30.0	San Pedro	Tuxpan	Crude oil	17,499	13,556	7,593
William Campion	7	18.00	8	7.46	8	17 26	8	17.26	American	Garland Steamship Corporation	384.4	51.2	22.0	Grays Harbor	New York	Lumber	4,270	6,327	4,433
Argonne [17]	6	10.40	8	8.21	8	16.42	8	19.40	American	U. S. Navy	502.0	58.2	20.6	San Francisco	New York	([20])	362	.....	.....
Durango [1]	8	7.30	8	9.59	8	18.13	8	18.13	American	C. D. Mallory & Co	435.0	56.0	28.0	San Pedro	New York	Crude oil	10,800	7,642	5,275
Kina	8	7.40	8	10.27	8	19.10	8	22.50	Danish	Orient Steamship Co	385.1	53.3	26.0	Ocean Island	Denmark	Phosphate	7,800	6,080	4,618
Craster Hall	8	10.00	8	11.06	8	19.12	8	19.12	American	Isthmian Steamship Lines	380.0	50.0	24.6	Vancouver	Manchester	General	5,325	4,945	3,508
Bertha [18]	7	14.00	8	11.39	8	23.50	9	14.15	German	H. H. Schmidt	260.0	40.0	21.5	Callao	Jacksonville	Guano	3,200	2,036	1,829
Commercial Traveller	7	24.00	8	13.23	8	21.23	8	22.54	American	Moore & McCormack, Inc	380.3	53.1	22.0	Seattle	New York	Lumber, general	5,831	5,657	4,247
Munplaco	5	4.45	9	6.31	9	11.42	9	14.42	American	Munson Steamship Lines	327.2	46.2	20.0	Seattle	Antilla	Lumber	3,500	3,761	2,734
Minecla	8	11.30	9	6.48	9	14.55	10	12.30	American	Grace Line	298.6	40.0	19.10	Salaverry	New York	General	2,074	2,835	1,805
Hadnot [1]	8	18.00	9	7.30	9	16.12	9	17.16	American	Steamer Freeport Co	416.9	56.2	24.6	San Pedro	New York	Crude oil	9,000	6,706	4,639
J. W. Van Dyke [1]	8	20.30	9	9.08	9	16.47	9	16.12	American	Atlantic Refining Co	435.0	56.0	28.0	San Pedro	Philadelphia	Crude oil	10,000	7,460	5,215
Oleander	9	1.00	9	9.57	9	17.23	9	17.23	British	Davies & Newman	430.2	57.1	26.0	San Pedro	Tampico	Crude oil	9,426	7,426	5,095
Julia Luckenbach	9	1.20	9	10.39	9	17.43	9	17.43	American	Luckenbach Line	436.6	57.2	27.3	Portland	New York	Lumber, general	7,450	8,543	6,402
Suporteo	9	1.30	9	11.10	9	18.46	9	21.40	American	Transmarine Lines	324.0	46 2	22.3	Seattle	Newark	([21])	3,296	3,981	2,612
Matinicock [1]	9	7.00	9	12.07	9	20.10	10	2.30	American	Standard Oil Co. of N. J.	459.1	60.0	25.3	San Pedro	New York	Crude oil	10,017	8,171	6,014
Cacique	10	1.00	10	7.41	10	14.40	10	15.05	American	Pacific Mail Steamship Co	394.2	52.3	24.0	Seattle	Philadelphia	Lumber, general	5,109	6,652	4,913
William G. Warden [1]	10	0.45	10	8.02	10	16.00	10	16.00	American	Standard Oil Co. of N. J.	500.0	68.2	29.0	San Pedro	New York	Crude oil	15,100	10,521	7,600
Californian [19]	10	3.53	10	8.52	10	16.25	10	16.25	American	American-Hawaiian Line	461.8	59.8	24.0	Seattle	Boston	General	8,000	8,567	6,020
Patrician	10	8.00	10	9.41	10	17.45	10	19.13	British	Harrison Line	423.0	56.0	25.0	Victoria	London	([22])	7,852	6,353	4,598
Agwistar	10	10.35	10	11.39	10	18.30	10	18.30	American	Williams Steamship Co	370.0	53.1	23.0	Seattle	New York	Lumber, general	5,500	5,522	4,068
Argosy	4	2.42	10	12.34	11	12.30	11	12.30	American	Wessel Duval & Co. (S. B.)	390.0	54.2	24.3	Iquique	Baltimore	Nitrate of soda	7,250	6,203	4,280
Birkenhead [1]	10	11.45	10	12.44	10	20.25	11	1.05	American	Vacuum Oil Co.	425.0	57.2	27.6	San Pedro	Philadelphia	Crude oil	10,174	7,702	4,982
Hampton Roads [1]	10	4.20	10	13.35	10	21.42	10	21 42	American	McAllister Bros. (S. B.)	431.0	59.0	26.6	Los Angeles	Fall River	Crude oil	10,000	8,093	5,541
John D. Rockefeller [1]	10	16.00	11	7.45	11	15.10	11	15.10	American	Standard Oil Co. of N. J.	458.3	60.0	24.0	San Pedro	New York	Crude oil	10,900	8,633	6,314
Santa Cecelia	11	10.30	11	11.23	11	17.58	11	17.58	American	Planet Steamship Line	404.6	53.9	24.6	Vancouver	New York	Lumber, general	5,188	6,745	4,562
W. W. Mills [1]	11	6.00	11	13.45	11	21.32	11	21.32	British	Pure Oil Steamship Co	424.4	58.2	28.0	San Pedro	Marcus Hook	Crude oil	10,496	7,333	5,119
Southwestern Miller	11	6.00	11	15 12	11	22.30	11	22.30	British	Furness, Withy & Co	420.0	53.6	26.0	Vancouver	Havre	General	6,846	7,138	5,122
Delbeck	11	12.10	12	6.32	12	15.30	12	15.30	American	Barber Line (S. B.)	401.7	54.8	22.0	Cebu	New York	General	4,900	6,928	5,103

[1] Tanker. [17] U. S. transport. [18] Sail boat. [19] Motor ship. [20] General navy cargo and household effects. [21] Lumber, hay, and canned fruit. [22] Canned goods, meat, and general.

San Macedonio [1]	11	21.50	12	7.34	12	16.40	12	16.40	British	Eagle Oil Transport Co	497.2	52.3	26.0	San Pedro	Tampico	Crude oil	7,400	6,192	4,347
Santa Rosa	12	1.10	12	7.54	12	17.00	12	17.00	American	Pacific Mail Steamship Co	401.6	53.9	26.4	San Francisco	New York	([24])	3,000	6,751	4,786
Sumanco	12	4.50	12	9.27	12	17.45	12	17.45	American	Transmarine Co	324.0	46.2	21.0	Aberdeen	Newark	Lumber	3,198	3,984	2,612
U. S. S. Ramapo [1]	12	8.00	12	9.46	12	18.43	14	7.03	American	U. S. Navy	461.6	60.0	27.0	San Pedro	Cristobal	Navy stores [25]	10,000		
Teno	12	8.05	12	10.41	12	19.12	13	1.03	Chilean	Chilean Line	422.8	56.2	27.6	Valparaiso	New York	General	5,343	7,758	4,672
Ashworth	12	12.30	12	13.15	12	21.05	12	22.40	British	R. S. Dalgliesh, Ltd	400.0	52.3	25.3	Portland	Queenstown	Grain	7,519	5,732	3,991
Bidwell [1]	12	12.45	12	13.31	13	16.20			American	Sun Oil Co	431.0	59.2	26.6	San Pedro	New York	Crude oil	10,309	7,787	4,802
Bachi	12	13.10	12	14.46	12	23.30	12	23.20	Spanish	Hijos de Astigarraga	331.2	46.7	21.8	Guayamas	Bilbao	Chick peas	4,300	3,470	2,121
U. S. S. Denver			13	6.29	13	14.10	14	7.20	American	U. S. Navy	292.0	44 0	17.5	Balboa	Cristobal				
Sciota [23]			13	6.30	13	13.50			American	U. S. Navy	155.0	30.0		Balboa	Cristobal				
Carolyn	12	13.00	13	7.24	13	15.30	13	15.30	American	A. H. Bull & Co	313.6	46.1	20.3	Portland	Baltimore	General	4,087	3,644	2,561
Mexican	13	1.00	13	11.57	13	19.00	13	19.00	American	American-Hawaiian Line	472.3	57.2	22.0	Seattle	Philadelphia	General	5,240	9,258	6,874
Toco [1]	13	11.20	13	12.18	13	20.17	13	21.40	British	Chile Steamship Co. of N. Y.	440.8	56.0	14.9	Tocopilla	Tampico	Ballast		7,693	4,836
Munaires	13	12.30	13	13.50	13	21.15	13	21.15	American	Munson Line	370.0	53.0	25.6	Everett	Baltimore	Lumber, general	5,540	5,577	4,225

[1] Tanker. [23] Towing target. [24] Hay, canned goods, and general. [25] Oil. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 7	Edgemoor	U. S. Army (S. B.)	New York.	October 7	Ulua	United Fruit Co	New York via Habana.
October 7	Camden	United Fruit Co	Tampico.	October 7	Abangarez	United Fruit Co	Bocas del Toro and Port Limon.
October 7	Ulua	United Fruit Co	Port Limon.				
October 7	Abangarez	United Fruit Co	New Orleans via Habana.	October 8	Camden	United Fruit Co	Tampico.
October 8	P. de Latouche	French Line	Havre via wayports.	October 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
October 9	Toloa	United Fruit Co	New York via Habana.	October 10	Oranje Nassau	Royal Netherlands W. I. Mail	Port Limon.
October 10	Turrialba	United Fruit Co	New Orleans via Habana.	October 10	Toloa	United Fruit Co	Port Limon.
October 10	St. Mihiel [26]	U. S. Army	New York.	October 10	Turrialba	United Fruit Co	New Orleans via wayports.
October 10	San Bruno	United Fruit Co	Boston via Habana.	October 11	Tivives	United Fruit Co	Colombian ports.
October 10	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.	October 11	San Bruno	United Fruit Co	Boston via Port Limon.
October 10	Tivives	United Fruit Co	New York via Kingston.	October 11	Abangarez	United Fruit Co	New Orleans.
October 11	Abangarez	United Fruit Co	Bocas del Toro.	October 12	P. de Latouche	French Line	Havre via wayports.
October 10	Dakotian	Leyland Line	Liverpool via wayports.	October 13	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.
October 12	Ulysses	Panama Railroad Steamship Line	Norfolk.	October 13	St. Mihiel [26]	U. S. Army	New York and San Juan
October 12	Oranje Nassau	Royal Netherlan ls W. I. Mail	Port Limon.	October 13	Bayano	Elders & Fyffes, Ltd	Kingston and Bristol.
October 12	Adalia	Hamburg-American Line	Hamburg via wayports.	October 13	Edgemoor	U. S. Army	New York.
October 13	Bayano	Elders & Fyffes, Ltd	Port Limon.	October 13	Dakotian	Leyland Line	Kingston.
October 13	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	October 13	Adalia	Hamburg-American Line	Port Limon.

[26] Transport.

PORT OF BALBOA.

October 7	Capsa [1]	Shell Line	San Francisco.	October 9	Capsa [1]	Shell Line	San Pedro.
October 7	Remus	Latin-Ameriea Line	San Francisco, via Punta Arenas.	October 8	Remus	Latin-America Line	Antofagasta.
October 7	Ohio [27]	E. W. Scrippe	La Union.	October 11	Ohio [27]	E. W. Scrippe	Callao.

[1] Tanker. [27] Yacht.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in September, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
United States intercoastal:							
United States	90	403,730	502,173	639,090	401,814	$403,001.15	183,017
From United States to South America:							
British	3	9,721	12,333	16,465	10,117	10,971.51	2,013
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	1,187
Japanese	2	8,697	9,414	11,689	8,486	8,835.63	5,307
Norwegian	1	2,717	4,230	4,341	2,723	3,396.25	505
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,218
United States	10	35,533	42,154	62,073	35,473	34,381.81	9,587
Totals	18	61,404	74,282	104,017	62,239	63,505.20	20,817
From United States to Far East:							
British	5	20,748	27,322	31,824	20,861	25,840.55	28,511
Japanese	3	11,114	13,185	16,294	10,572	13,803.05	9,189
United States	5	22,030	28,516	33,959	21,704	27,537.50	38,789
Totals	13	53,892	69,023	82,077	53,137	67,181.10	76,489
From Europe to United States:							
British	5	19,175	22,825	30,521	19,058	17,305.78	1,760
Dutch	3	14,695	19,417	23,873	14,764	15,976.03	12,221
German	1	4,909	6,680	8,116	4,887	6,136.25	5,088
Norwegian	2	6,629	8,492	10,705	6,691	7,070.07	5,400
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	398
Totals	12	48,368	61,143	77,855	48,121	50,188.13	24,867
From Europe to South America:							
British	4	17,888	21,600	29,227	17,928	22,360.00	20,517
Dutch	2	7,948	10,854	12,703	7,663	9,935.00	11,300
French	1	4,326	4,363	5,903	3,743	5,235.60	999
German	2	8,208	8,720	10,572	6,525	9,991.45	7,783
Italian	1	3,306	3,974	5,488	3,276	4,132.50	1,013
Jugo-Slav	1	2,694	3,987	4,289	2,705	3,367.50	6,300
Spanish	1	2,878	3,451	3,721	2,049	2,484.72	.....
Totals	12	47,248	56,949	71,903	43,889	57,506.77	47,912
From United States to Australasia:							
British	7	25,338	34,250	41,047	25,742	31,672.50	45,347
Swedish	1	2,688	3,900	4,354	3,366	3,360.00	3,550
Totals	8	28,026	38,150	45,401	29,108	35,032.50	48,897
From United States to Hawaii:							
United States	1	4,266	5,536	6,886	4,261	5,332.50	8,585
From West Indies to Australasia:							
British	1	162	174	484	199	202.50	.....
From West Indies to United States							
British	1	2,170	2,473	3,450	2,233	1,780.56	.....
United States	1	6,304	6,314	8,375	6,364	4,728.00	.....
Totals	2	8,474	8,787	11,825	8,597	6,508.56	.....
Foreign ships in ballast, United States coastwise:							
British	2	7,182	10,294	11,649	7,228	7,411.68	.....
Dutch	1	2,691	3,832	4,441	2,702	3,363.75	.....
Norwegian	1	6,533	7,148	6,633	3,754	5,146.56	.....
Totals	4	16,406	21,274	22,723	13,684	15,921.99	.....
From Cristobal, C. Z. to United States:							
United States	2	2,499	3,142	4,127	2,470	3,123.75	2,666
From Cristobal, C. Z. to Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	2,522
From Cristobal, C. Z. to South America:							
British	2	612	956	1,152	715	765.00	374
Chilean	2	3,274	5,759	6,351	3,872	4,092.50	484
Peruvian	1	1,506	2,951	4,744	2,673	1,882.50	446
Totals	5	5,392	9,666	12,247	7,260	6,740.00	1,304
From Europe to Australasia:							
British	6	33,249	44,050	48,807	30,964	41,282.60	28,900
From Canada to Australasia:							
British	2	6,779	8,235	11,051	6,786	8,473.75	7,075

ATLANTIC TO PACIFIC—Continued.

Nationality.	No. of ships.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From United States to Canada:							
British	2	8,007	10,453	12,938	8,067	$8,014.50	6,720
United States	1	4,263	5,533	6,887	4,263	5,328.75	9,153
Totals	3	12,270	15,986	19,825	12,330	13,343.25	15,873
From Europe to United States:							
British	1	3,228	4,087	5,276	3,241	2,942.64	.....
From South America to Far East:							
Japanese	1	3,684	4,241	5,850	3,642	4,605.00	2,525
From Europe to Canada:							
British	1	3,132	5,306	5,089	3,143	3,915.00	5,500
French	2	8,963	9,937	12,304	7,727	11,112.45	5,790
Totals	3	12,095	15,243	17,393	10,870	15,027.45	11,290
From Europe to Central America:							
British	1	2,869	3,592	4,476	2,840	3,586.25	2,941
From South America to United States:							
British	1	4,301	5,095	7,045	4,371	3,668.40	.....
From east coast of Mexico to west coast of Mexico:							
British	1	701	835	1,408	725	889.00	768
From Europe to Central America:							
German	1	2,393	3,381	4,015	2,434	2,991.25	920
Spanish	1	1,858	2,121	3,071	1,815	1,527.12	.....
Totals	2	4,251	5,502	7,086	4,279	4,518.37	920
From Mexico to United States:							
United States	1	4,302	4,963	7,127	4,419	3,573.36	.....
From United States to Central America:							
British	1	2,477	2,588	3,277	2,033	3,096.25	3,860
From Central America to South America:							
British	2	8,578	9,554	14,672	8,645	10,722.50	19,546
From east coast of South America to west coast of South America:							
Colombian	1	334	335	864	614	402.00	375
Peruvian	2	2,193	4,791	7,708	3,604	2,741.25	570
Totals	3	2,527	5,126	8,572	4,218	3,143.25	945
Totals, September, 1923	198	782,467	989,837	1,242,798	775,346	834,714.72	511,719
Totals, September, 1922	126	460,363	582,416	725,894	453,209	545,856.98	467,836
Totals, September, 1921	128	434,259	530,634	669,087	427,395	518,793.61	300,720

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	108	495,451	603,748	780,238	495,927	$616,929.45	1,022,999
From South America to United States:							
British	5	27,582	31,417	44,233	27,338	34,215 90	47,531
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,387
Danish	1	2,139	2,113	2,327	1,335	2,535.60	3,910
Finnish	1	1,893	1,889	2,039	1,898	2,266.80	3,200
German	1	2,042	2,033	2,297	1,914	2,439.60	3,180
Norwegian	5	11,347	13,349	16,327	10,418	13,958.00	21,941
United States	8	28,241	34,501	47,153	28,557	35,241.40	62,241
Totals	22	76,756	90,007	121,716	75,476	95,057.30	147,390
From South America to Europe:							
British	9	32,783	41,158	53,245	32,642	40,982.50	56,488
Dutch	3	10,017	13,493	14,550	8,851	12,201.50	20,578
French	2	7,166	8,227	11,446	7,281	8,957.50	13,014
German	3	10,113	14,780	16,760	10,057	12,641.25	20,913
Italian	3	9,362	11,151	15,371	9,091	11,700.50	12,223
Norwegian	1	3,089	3,107	4,052	3,011	3,728.40	5,400
Spanish	1	3,234	3,897	5,617	3,342	4,105.00	100
Swedish	1	3,274	3,703	4,257	2,862	4,032.50	7,300
Danish	1	4,473	5,588	7,014	4,470	5,591.25	9,900
Totals	24	83,561	105,112	132,312	81,643	104,030.40	145,916

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of ships.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From South America to Cristobal, C. Z.:							
British	3	675	1,028	1,263	815	$843.75	582
Chilean	2	3,274	5,759	6,351	3,872	4,092.50	540
Japanese	1	4,086	5,081	6,577	4,044	5,107.50	8,400
Peruvian	1	1,506	2,951	4,744	2,673	1,882.50	1,589
Totals	7	9,541	14,819	18,935	11,404	11,926.25	11,111
From United States to Europe:							
British	9	31,762	40,865	50,789	31,517	39,702.50	68,832
French	1	3,224	4,854	5,399	3,225	4,030.00	7,548
German	2	7,533	10,759	12,563	7,501	9,416.25	13,948
Japanese	1	4,314	4,663	5,838	4,218	5,392.50	7,733
Norwegian	4	15,868	19,549	24,224	15,656	19,835.00	31,638
Swedish	2	6,792	11,117	11,200	8,566	8,490.00	15,548
United States	1	6,067	7,913	9,836	6,006	7,583.75	14,000
Totals	20	75,560	99,720	119,849	76,689	94,450.00	159,247
From Canada to Europe:							
British	2	10,096	13,437	15,930	10,144	12,620.00	12,703
From Australasia to United States:							
United States	1	4,309	4,944	6,848	4,280	5,386.25	350
From South America to Canada:							
British	1	5,169	6,091	8,764	5,511	6,461.25	11,636
From United States to Mexico:							
British	4	24,087	27,219	38,280	23,973	30,108.75	50,882
Danish	1	1,715	2,166	2,925	1,748	2,143.75	1,877
Totals	5	25,802	29,385	41,205	25,721	32,252.50	52,759
From South America to Mexico:							
British	2	8,578	9,554	14,672	8,545	6,878.88	.....
From South America to Egypt:							
British	2	6,581	7,948	10,188	6,297	8,226.25	15,150
Japanese	1	3,324	4,457	5,454	3,302	4,155.00	7,677
Totals	3	9,905	12,405	15,642	9,599	12,381.25	22,827
From Central America to United States:							
Panama	1	4,014	4,897	6,386	4,067	5,017.50	8,701
From Central America to Europe:							
German	1	2,640	3,524	4,243	2,615	3,300.00	2,200
From Far East to United States:							
Japanese	1	5,021	5,063	6,785	4,894	6,075.60	3,280
From Hawaii to United States:							
United States	2	9,046	11,253	14,529	9,049	8,099.01	7,122
From Central America to Cristobal, C. Z.:							
British	1	638	706	1,170	654	797.50	71
From South America to West Indies:							
Danish [1]	1	1,946	2,390	3,135	1,959	2,432.50	4,669
From United States to Cristobal, C. Z.:							
British [1]	1	2,411	3,053	3,996	2,549	3,013.75	5,384
United States	2	2,499	3,142	4,127	2,470	3,123.75	376
Totals	3	4,910	6,195	8,123	5,019	6,137.50	5,760
From Australasia to Canada:							
British	1	3,322	4,186	5,439	3,336	4,152.50	522
From Australasia to Europe:							
British	1	2,327	2,567	4,498	2,446	2,908.75	.....
French	1	4,308	4,983	6,888	4,427	5,385.00	3,688
Totals	2	6,635	7,550	11,386	6,873	8,293.75	3,688
From Philippines to United States:							
Norwegian	1	4,108	5,131	6,552	4,122	5,135.00	6,000
From west coast of South America to east coast of South America:							
Colombian	1	334	335	864	614	402.00	327
Peruvian	1	989	2,405	3,305	1,514	1,236.25	2,222
Totals	2	1,323	2,740	4,169	2,128	1,638.25	2,549
From United States to Canada:							
United States	2	7,687	10,617	12,159	7,627	9,608.75	13,217
From Canada to United States:							
United States	2	6,894	10,241	11,329	6,929	8,617.50	12,267
Totals, September, 1923	215	862,912	1,063,715	1,371,516	864,211	1,067,738.89	1,656,984
Totals, September, 1922	114	382,747	487,994	607,207	384,726	474,207.57	670,352
Totals, September, 1921	93	314,494	394,503	498,133	316,179	378,207.93	454,174

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 26, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "B:"	
Ward 5, Male, private rooms, and American boys' ward	Daily 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, and American girls' ward	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Sundays, and Holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.30 to 4.30 p. m.
Ward 17, Colored, children	
Ward 18, White, children	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 19, Colored, female, medical	Daily 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 20, Colored, female, surgical, obstetrical	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Arrive Cristobal.	Leave Cristobal.	Arrive New York.
Panama			October 9	October 16.
Cristobal	October 5	October 13	October 19	October 26.
General W. C. Gorgas	October 15	October 24	October 29	November 6.
Panama	October 25	November 2	November 9	November 16.
Cristobal	November 5	November 13	November 19	November 26.
General W. C. Gorgas	November 15	November 24	November 29	December 7.
Panama	November 24	December 3	December 9	December 16.
Cristobal	December 5	December 13	December 19	December 26.
General W. C. Gorgas	December 15	December 24	December 29	January 6.
Panama	December 24	January 1	January 9	January 16.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $2 00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., October 24, 1923. No. 11.

Canal Traffic for the First Half of October.

During the first 15 days of October, 1923, 219 commercial vessels transited the Canal paying tolls to the amount of $1,027,395.32. This is an average of 14.6 ships per day and an average daily collection of $68,493.02 in tolls.

In addition to the 219 commercial transits noted above, 8 small launches measuring under 20 tons, passed through the Canal and paid tolls to the amount of $18.45.

During the calendar year to October 15, the average daily number of transits and tolls collected have been as shown in the following tabulation:

	No. of transits.	Tolls.
January	11.35	$48,557.60
February	11.64	50,855.51
March	13.20	58,958.66
April	13.47	62,631.27
May	13.52	63,619.87
June	13.90	63,268.13
July	15.29	68,529.36
August	14.65	66,150.22
September	13.77	63,415.12
October (first 15 days only)	14.60	68,493.02

With the exception of July, 1923, the first 15 days in October showed the highest daily average collection of tolls for a 15-day or month's period, since the opening of the Canal.

Valuable Paintings Through the Canal.

The motorship *Californian* of the American-Hawaiian Line which passed through the Canal northbound on October 10, had on board a case of paintings valued at $1,400,000 loaded at San Francisco for a museum in New York City.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 20, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Colombia	Pacific Mail Steamship Co.	October 14.	October 14.	17	26
Arcs	Royal Netherlands West India Mail	October 14.	October 14.	197	.....
Laura C. Hall	Pacific Metals Corporation	October 15.	October 15.	10	.....
Akera	Anglo-Saxon Petroleum Co.	October 15.	October 17.	6,908	.....
Ramapo	U. S. Navy	October 15.	October 15.	2,571	.....
Almagro	Pacific Steam Navigation Co.	October 19.	October 19.	.....	74

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, September, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Mexico.	West coast of Canada.	West coast of North America.	West coast of Central America.	Balboa, C. Z.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
North Atlantic ports	10,018	769	280	2,237	13,777	27,081	153,728		1,000		3,010	10,650	164,099	25,513	10,427	8,208	6,711	50,859	12,647	27,380		40,027	947	287,302	56.1
Gulf ports	724			148	1,346	2,218	23,545		6,720				25,266	8,747	22,567			31,314		7,924		7,924		71,722	14.0
Totals, United States	10,742	769	280	2,385	15,123	29,299	167,985		7,720		3,010	10,650	189,365	34,260	32,994	8,208	6,711	82,173	12,647	35,301		47,951	947	359,024	70.1
East coast of Mexico	19,546					19,546		768					768											20,314	4.0
Cristobal, C. Z.[2]	475	10		446	946	1,877	2,785				3,354		6,139											8,016	1.6
East coast of Canada																			3,061	3,800		6,864		6,864	1.3
Totals, North America	30,763	779	280	2,831	16,069	50,722	180,059	768	7,720		6,364	10,650	205,561	34,260	32,994	8,208	6,711	82,173	15,711	39,104		54,815	947	394,218	77.0
Europe:																									
Belgium	4,132			112	126	4,370																		4,370	0.9
British Isles	3,841		91	834	6,775	11,541	10,646		46		2,941		13,633						22,291	3,020		25,311		50,485	9.9
France				252	747	999	2,553						2,553											3,552	0.7
Germany	1,503	200	593	2,346	7,587	12,229	5,037		51				5,088											17,317	3.4
Holland							157						157											157	
Norway and Sweden							5,400						5,400											5,400	1.0
Spain	398					398																		398	
Europe [1]	6,535				10,665	17,200	10,918				920		11,838						3,589			3,589		32,627	6.4
Italy	1,013					1,013																		1,013	0.2
Totals, Europe	17,422	200	684	3,544	25,900	47,740	34,711		97		3,861		38,669						25,880	3,020		28,900		115,319	22.5
East coast of South America				688		688								1,494				1,494						2,182	0.5
Grand totals	48,185	979	964	7,063	41,969	99,160	214,770	768	7,817		10,225	10,650	244,230	35,754	32,994	8,208	6,711	83,667	41,591	42,124		83,715	947	511,719	100.0
Per cent of total cargo:																									
September, 1923	9.4	0.2	0.2	1.3	8.2	19.4	42.0	0.2	1.5		2.0	2.0	47.7	6.9	6.5	1.6	1.3	16.3	8.2	8.2		16.4	0.2		100.0
September, 1922	4.0	0.1	0.1	1.1	6.7	12.0	44.9	0.3	0.1	2.5	0.4		48.2	5.3	8.1		11.9	25.3	4.0	5.9	4.1	14.0	0.5		100.0
September, 1921	5.7	0.5	0.2	0.7	10.6	17.7	18.8		2.4		0.4	8.8	30.4	13.6	6.2	1.3	15.6	36.7	2.6	6.3	6.0	14.9	0.3		100.0

[1] General cargo not routed so as to allow segretation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, September, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[1]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[1]	Italy.	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	86,409	.....	23,564	109,973	.....	4,811	.....	8,550	123,344	16,980	81	....	5,887	1,795	....	13,737	77,940	4,620	121,040	..	22,827	267,211	16.1
Colombia	285	.....	.....	285	.....	.....	.....	528	813	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	.....	828	.....
Ecuador	1,577	.....	2,000	3,577	.....	.....	.....	209	3,786	.....	.....	.....	20	.....	.....	203	911	83	1,217	.....	.....	5,003	0.3
Peru	29,949	3,200	.....	33,149	11,636	.....	.....	2,329	47,114	16,417	.....	.....	12	.....	.....	.....	.....	.....	16,429	.....	.....	63,543	3.9
W. coast S. America [1]	5,739	.....	.....	5,739	.....	.....	.....	2,250	7,989	4,438	31	....	.....	.....	....	62	1,882	671	7,084	.....	.....	15,073	0.9
Totals, South America	123,959	3,200	25,564	152,723	11,636	4,811	.....	13,876	183,046	37,835	112	....	5,919	1,795	....	14,002	80,733	5,374	145,770	15	22,827	351,658	21.2
North America:																							
West coast of U. S	902,632	1,635	113,336	1,017,603	13,217	550	52,759	6,070	1,090,199	135,573	791	...	.....	17,467	....	6,809	8,780	.....	169,420	.....	.....	1,259,619	76.0
West coast of Canada	3,400	.....	.....	3,400	.....	.....	.....	13	3,413	2,828	.....	.....	.....	.....	.....	.....	.....	.....	2,828	.....	.....	6,241	0.5
West coast, Cen. Am.	7,434	.....	.....	7,434	.....	55	.....	313	7,802	7,080	.....	.....	.....	1,919	....	.....	.....	.....	8,999	.....	.....	16,801	1.0
West coast, N. America[2]	.....	.....	.....	.....	.....	.....	.....	.....	.....	434	.....	....	150	.....	....	.....	.....	.....	584	.....	.....	584	.....
Hawaii	7,122	.....	.....	7,122	.....	.....	.....	.....	7,122	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	7,122	0.4
Totals, N. America	920,588	1,635	113,336	1,035,559	13,217	605	52,759	6,396	1,108,536	145,915	791	....	150	19,386	....	6,809	8,780	.....	181,831	.....	.....	1,290,367	77.9
Asia:																							
China	3,822	.....	.....	3,822	.....	.....	.....	.....	3,822	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	3,822	0.2
Philippines	6,535	.....	.....	6,535	.....	.....	.....	.....	6,535	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	6,535	0.4
Far East [1]	42	.....	.....	42	.....	.....	.....	.....	42	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	42	.....
Totals, Asia	10,399	.....	.....	10,399	.....	.....	.....	.....	10,399	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	10,399	0.6
Australasia:																							
Australia	510	.....	.....	510	14	.....	.....	.....	524	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	524	.....
New Zealand	327	.....	.....	327	21	.....	.....	.....	348	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	348	.....
Australasia [1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	571	....	3,117	.....	....	.....	.....	.....	3,688	.....	.....	3,688	0.3
Totals, Australasia	837	.....	.....	837	35	.....	.....	.....	872	.....	571	....	3,117	.....	....	.....	.....	.....	3,688	.....	.....	4,560	0.3
Grand totals	1,055,783	4,835	138,900	1,199,518	24,888	5,416	52,759	20,272	1,302,853	183,750	1,474	...	9,186	21,181	....	20,811	89,513	5,374	331,289	15	22,827	1,656,984	100.0
Per cent of total cargo:																							
September, 1923	63.7	0.4	8.3	72.4	1.5	0.3	3.2	1.2	78.6	11.1	0.1	....	0.6	1.3	....	1.2	5.4	0.3	20.0	...	1.4	.....	100.0
September, 1922	50.7	1.8	1.9	54.4	.....	5.6	0.1	2.3	62.4	15.7	0.2	....	2.3	0.8	0.6	0.8	15.6	0.1	36.1	....	1.5	.....	100.0
September, 1921	29.8	1.6	0.7	32.1	.....	1.1	.....	2.6	35.8	37.3	3.8	1.3	1.5	1.8	0.7	1.7	14.9	1.1	64.1	0.1	.....	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 20, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Colombia	13	11.40	14	6 08	14	14.04	15	15.12	American	Pacific Mail Steamship Co	389.0	49.0	22.8	New York	San Francisco	General	3,137	6,015	4,281
Ares	13	4.10	14	6.03	14	14.44	15	1 07	Dutch	Royal Netherlands W. I. Mail	340.0	48.0	24.6	Hamburg	Guayaquil	General	3,200	4,385	3,195
Ramapo [1]	12	18.43	14	7 03	14	15.31	16	3.40	American	U. S. Navy	461.0	60.0	18.0	Cristobal	Balboa	(4)			
Missourian [2]	13	14.30	14	7.47	15	9.23	15	10.21	American	American-Hawaiian Line	461.0	60.0	21.6	Boston	Los Angeles	General	5,243	8,567	6,020
Rio Clara	13	16.57	14	8.22	14	17.15	18	0.40	Chilean	Chilean Lloyds	260.0	37.8	17.0	Hamburg	Arica	General	1,090	2,342	1,487
Marija Racic	13	19.55	14	8.10	14	19.05	14	20.30	Jugo-Slav	J. Racic & Co	378.0	52.0	23.0	Blythe	Antofagasta	(5)	5,631	5,181	3,713
Charles Pratt [1]	14	0.15	14	8 30	14	16.50	15	18.25	American	Standard Oil Co	500.0	68.0	20.0	New York	San Pedro	Ballast		10,313	7,492
George G. Henry [1]	14	3.15	14	9.25	14	17.30	14	18.34	American	Pan-American Pet. Co	435.0	56.0	21.0	Perth Amboy	San Pedro	Ballast		7,221	4,988
Rhine Maru	14	4 25	14	9.32	14	19 50	15	2.49	Japanese	Kabushiki K. K. Zosenjo	405.0	33.0	27.0	Cardiff	Antofagasta	Patent fuel	8,100	7,044	5,136
Chuky [1]	14	6.32	14	10 59	14	20.26	18	1.08	British	Sheridan Steamship Co	440.8	56.0	27.6	Tampico	Tocopilla	Crude oil	9,586	7,691	4,723
Munindies	14	6.37	14	11.02	14	21.16	15	4.37	American	Munson Steamship Line	370.0	53.1	13.11	Baltimore	Seattle	General	2,200	5,525	4,097
Plum Branch	14	11.15	14	13.23	14	22.29	14	23.44	British	Nautilus Steamship Co	398 5	53.8	18.3	Glasgow	Coronel	General	1,742	5,761	3,881
John Worthington [1]	14	20.00	15	6.30	15	13.53	15	15.00	American	Standard Oil Co	462.0	60.2	19.0	Charleston	San Pedro	Ballast		8,491	6,096
Cape Cod [1]	15	6.15	15	7.40	15	15.13	15	21.01	American	Cape Steamship Co	425.0	57.0	19.6	New York	San Pedro	Ballast		7,218	4,955
Erroll	15	9.10	15	11.10	15	18.56	15	20.26	British	Trinder Anderson	365.0	47.0	18.0	Montreal	Auckland	(6)	1,960	4,665	3,322
Hallgrim	15	11.00	15	11.20	15	19.41	15	21.01	Norwegian	Rederiet Odfjell	420.0	64.0	14.6	Norfolk	San Francisco	Ballast		7,039	5,242
West Canon	15	21.10	16	6.27	16	14.34	16	16.00	American	Kerr Steamship Co. (S. B.)	410.0	54.0	23.6	New York	Amoy	Case oil	8,200	6,624	4,877
E. L. Doheny 3d [1]	16	2.45	16	7.36	16	14.55	16	16.00	American	Pan-American Petroleum Co	467.0	62.6	22.0	New York	San Pedro	Ballast		9,666	7,034
G. Harrison Smith [1]	16	3.55	16	8 13	16	16.44	16	17.48	British	International Petroleum Co	550.0	72.0	26.0	New York	San Pedro	Ballast		15,476	11,102
Samuel Q. Brown [1]	16	7.40	16	9.22	16	17.30	16	18.26	American	Tidewater Oil Co	424.4	58.2	20.0	Fall River	San Pedro	Ballast		7,333	5,246
Huguenot [1]	16	9.25	16	10 00	16	17.36	17	9.55	American	McAllister Bros. (S. B.)	434 8	56.0	21.0	New York	Los Angeles	Ballast		7,394	5,099
West Notus	16	6.58	16	11.10	16	18.26	16	19.34	American	Swayne & Hoyt (S. B.)	410.5	54.3	17.5	Buenos Aires	San Francisco	General	3,241	6,583	4,914
Swifteagle [1]	16	11.30	16	11.45	16	19.14	16	21.04	American	Swiftsure Oil Transport	465.0	60.2	22.0	New York	San Pedro	Ballast		8,473	5,997
Edward Luckenbach	17	5.55	17	8.39	17	16.57	17	21.20	American	Luckenbach Line	436.6	57.0	25.0	Boston	Puget Sound	General	6,408	8,543	6,427
Halsey [1]	17	10 00	17	10.15	17	18.23	17	19 31	American	Malston Steamship Line	435.0	56.0	21.0	New York	San Pedro	Ballast		7,642	5,324
District of Columbia [1]	16	1.40	17	13.45	17	21.02	17	22 07	American	Walker & Daly (S. B.)	431.0	59.2	17.10	New York	San Pedro	Ballast		8,097	5,431
Elva [3]	16		17		17	12 13			Panaman	N. Wickham				Cristobal	Gatun Lake	Unknown		3	3
Agwimex [1]	17	15.35	18	6.12	18	13.30	18	14 47	American	Atl. Gulf & W. I. S. S. Co	480.0	66.0	19.6	Baltimore	San Pedro	Ballast		9,394	6,306
J. A. Bostwick [1]	17	20 25	18	7.35	18	14.51	18	16.35	American	Standard Oil Co	465.0	60.0	19.8	New York	San Pedro	Ballast		8,511	5,981
J. C. Donnell [1]	17	22.50	18	8.22	18	15.42	18	18.06	American	Atlantic Refining Co	500.0	68.3	21.0	Philadelphia	San Pedro	Ballast		10,435	7,900
W. S. Rheem [1]	18	6.32	18	9.45	18	16.47	18	18.27	American	Standard Oil Co	500.0	68.2	22.0	Baltimore	Los Angeles	Ballast		11,224	7,860

[1] Tanker. [2] Motor ship. [3] Launch. [4] 16,711 barrels of oil. [5] Coal and 100 sheep. [6] Automobiles, wine, and general.

Hayo Maru	18	9.15	18	10.00	18	17.54	19	20.07	Japanese	Toyo Kisen Kaisha	400.0	53.0	21.0	New York	Yokohama	Steel, general	4,278	6,186	4,446
Balboa	16	15.20	18	12.50	18	19.58	18	23.56	Colombia	Cia. Costanera Colombiana	190.0	29.1	14.0	Pto. Colombia	Tumaco	Salt and general	478	737	335
Almagro	17	17.54	18	13.00	18	19.58	19	12.15	British	Pacific Steam Navigation Co	303.0	43.0	13.9	New York	Guayaquil	General	631	2,878	1,714
Surichco	18	20.40	19	6.48	19	14.54	19	16.05	American	Transmarine Corporation	335.6	46.0	23.0	Newark	Los Angeles	General	2,800	3,984	2,612
Atto	19	4.00	19	6.42	19	14.14	19	15.26	German	Roland Line	360.0	51.0	20.0	Hamburg	Guayaquil	General	2,192	4,805	3,400
Ohioan	19	3.55	19	7.45	19	15.08	19	20.56	American	American-Hawaiian Line	407.0	53.7	19.0	Boston	San Pedro	General	3,012	7,112	4,896
Solana [1]	19	4.10	19	8.37	19	15.55	19	23.32	American	Pacific Mail Steamship Co	435.0	56.6	19.0	Fall River	San Pedro	Ballast		7,060	5,025
Steel Trader	19	6.30	19	9.52	19	17.41	20	0.12	American	U. S. Steel Products Co	424.0	56.0	25.11	Baltimore	Los Angeles	General	8,442	7,611	5,450
Manuel Arnus	18	9.15	20	6.13	20	13.34	20	14.49	Spanish	Spanish Steamship Line	435.0	56.0	22.10	Barcelona	Valparaiso	General	277	7,732	5,518
Elisha Walker [1]	19	19.45	20	6.18	20	14.30	20	15.55	American	Pan-American Petroleum Co	429.2	59.2	23.0	Boston	San Pedro	Ballast		7,978	5,971
Gothiestar	20	3.20	20	7.25	20	14.51	20	21.59	British	Blue Star Line	419.0	54.0	15.0	London	Seattle	Ballast		7,521	5,852
J. N. Pew [1]	20	5.55	20	8.25	20	15.48	20	16.39	American	Sun Oil Co	480.5	66.0	22.0	Chester	San Pedro	Ballast		9,494	6,612
Walter Jennings [1]	20	10.35	20	10.45	20	17.24	20	19.25	American	Standard Oil Co	499.2	68.0	18.0	New York	San Pedro	Ballast		11,037	7,995
Bologna	19	8.25	20	11.25	20	18.38	20	20.25	Italian	La Veloce Line	384.0	46.0	19.11	Genoa	Valparaiso	General	485	5,531	3,774
James McGee [1]	20	12.40	20	12.45	20	19.23	20	20.25	American	Standard Oil Co	499.1	68.2	18.10	New York	San Pedro	Ballast		10,964	7,909
Steel Ranger	20	9.55	20	12.45	20	20.47	20	21.59	American	U. S. Steel Products Co	424.0	56.0	26.6	New York	San Diego	General, steel	8,459	7,611	5,450

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ohio [7]	12	6.00	14	6.32	14	15.00			American	E. W. Scripps	160.5	26.0	11.3	La Union	Cristobal			530	240
Texas	13	20.00	14	7.39	14	14.52	14	16.05	French	French Line	409.0	52.5	21.6	Portland	Leith	General	7,100	7,081	4,959
Harry Luckenbach	13	24.00	14	8.18	14	15.35	14	15.35	American	Luckenbach Line	448.9	60.2	23.6	Portland	New York	Lumber, general	4,457	9,262	6,853
Nora [1]	14	1.30	14	9.25	14	17.45	14	17.45	American	Pan-American Petroleum Co	467.6	62.7	29.6	San Pedro	New Orleans	Crude oil	14,030	9,918	7,468
Cerro Ebano [1]	14	3.10	14	9.52	14	17.50	14	17.50	American	Pan-American Petroleum Co	480.5	66.0	28.6	San Pedro	New Orleans	Crude oil	13,702	9,389	6,453
Lena Luckenbach	14	10.30	14	11.28	15	12.32	15	12.32	American	Luckenbach Line	425.0	53.8	24.0	Portland	Galveston	General, shingles	6,000	7,217	5,296
Cecil County [1]	14	6.30	14	13.50	14	22.10	14	22.10	American	Walker & Daly (S. B.)	431.0	59.2	24.6	San Pedro	Fall River	Crude oil	10,000	8,097	5,330
D. G. Schofield [1]	14	13.20	14	14.07	14	23.12	15	3.00	American	Standard Oil Co. of California	439.5	58.0	30.6	San Pedro	Baltimore	Crude oil	11,430	8,698	6,040
Laguna	14	15.50	15	6.46	15	15.05	15	19.36	British	Pacific Steam Navigation Co	420.5	54.2	26.6	Corral	Liverpool	[9]	6,673	7,085	4,586
Ivernia	14	18.45	15	7.24	15	15.30	15	17.20	Swedish	Moore & McCormick	274.0	40.7	19.0	Antofagasta	Baltimore	Nitrate of soda	2,372	2,243	1,479
H. M. Storey [1]	14	19.20	15	8.19	15	16.12	15	16.12	American	Standard Oil Co. of California	500.0	68.2	29.0	Los Angeles	New York	Crude oil	15,200	11,224	7,849
Cleartou	14	21.30	15	9.10	15	17.30	15	16.45	British	R. Chapman & Son	400.2	52.4	24.5	Portland	Colon [8]	Wheat	7,485	5,710	4,164
Agwihavre [1]	14	22.00	15	9.23	15	17.45	15	17.45	American	Ward Line	480.5	66.0	28.0	San Pedro	New York	Crude oil	12,670	9,394	6,305
Marie Maersk	15	2.15	15	10.26	15	18.43	15	22.25	Danish	A. P. Moller	362.2	51.4	26.0	Mejillones	Alexandria	Nitrates	7,100	4,971	3,428
Santa Ana	15	8.15	15	10.42	15	18.05	15	20.59	American	Grace Line	360.2	51.6	26.6	Talcahuano	New York	General	3,994	5,776	4,081
Laura C. Hall	15	1.25	15	12.28	15	19.29			British	Pacific Metals Transport Co	81.0	25.6	9.0	Buenaventura	Cristobal	Platinum [10]		132	72
Marore [1]	15	14.05	15	16.55	16	14.20	16	14.20	American	Ore Steamship Corporation	550.3	72.2	32.8	Cruz Grande	Baltimore	Iron ore	19,000	15,551	4,297
Huallaga	15	17.35	16	6.24	16	15.54	20	8.21	Peruvian	Peruvian Steamship Line	360.0	44.7	24.6	Callao	Cristobal	General	3,308	4,514	2,386
Valdura	15	15.55	16	7.35	16	15.45	16	16.40	British	Gow, Harrison & Co	414.5	56.0	26.0	Tocopilla	Cristobal [8]	Nitrates	8,636	6,101	4,358
Negada	15	21.00	16	8.18	16	17.00	16	18.30	German	German-Austral-Kosmos Line	410.8	50.6		Iquique	Antwerp	[11]	6,387	6,402	4,463
William Green [1]	16	2.36	16	9.49	16	17.00	16	17.00	American	Pan-American Petroleum Co	430.0	58.2	27.6	San Pedro	New Orleans	Crude oil	10,000	6,973	4,670
Alaska Maru	16	6.15	16	10.29	16	18.30	16	18.30	Japanese	Osaka Shosen Kaisha	420.0	56.0	16.5	Hongkong	New York	General	3,226	7,775	5,641
Commercial Spirit	16	8.00	16	11.27	16	19.05	16	21.20	American	Commercial Spirit Steamship Co.	380.4	53.1	23.6	Seattle	New York	Lumber, general	6,000	5,659	4,138

[1] Tank. [7] Yacht. [8] For orders. [9] Sack metals, sugar, cotton, wool, oats, nitrates, oil cake. [10] Value $72,971. [11] Nitrate of soda, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Armagh	16	8.15	16	11.39	16	19.59	16	21.07	British	New Zealand Shipping Co	530.5	63.5	....	Auckland	London	(13)	5,649	12,857	8,669
West Greylock	17	12.20	17	14.10	17	21.40	18	3.40	American	Argonaut Steamship Co. of N. J.	445.0	54.3	24.0	Honolulu	New York	Cases, pineapples	7,000	7,946	5,698
Thames Maru	17	13.30	17	14.28	17	22.10	18	6.05	Japanese	Kokusai Kisen Kabushiki Kaisha	385.0	51.0	28.4	Portland	Colon [12]	Wheat	7,565	5,928	4,381
Agwibay	17	13.45	17	16.05	18	12.00	18	12.00	American	New York & Cuban Mail Co.	468.3	62.7	27.0	San Pedro	Baltimore	Crude oil	12,500	9,776	6,903
Standard [1]	17	13.45	17	16.30	18	14.00	18	14.09	American	Standard Oil Co. of N. J.	523.8	68.6	30.0	San Pedro	New York	Crude oil	16,135	12,171	8,782
Canadian Pioneer	17	15.30	18	6.41	18	14.05	18	15.30	British	Canadian Govt. Mer. Marine	400.4	52.4	17.0	Sidney	Montreal	Canned goods	1,350	5,877	4,070
Steelmaker	17	15.46	18	7.06	18	15.10	18	15.10	American	Isthmian Steamship Lines	395.5	55.0	26.8	Seattle	Liverpool	General	8,356	7,330	5,245
Kentuckian	18	3.00	18	8.58	18	16.25	18	16.25	American	American-Hawaiian Line	414.5	53.7	25.9	Seattle	New York	General	6,500	7,049	4,941
Alvarado	18	8.00	18	13.26	18	20.25	18	20.25	American	Pacific Transport Co	245.0	41.5	15.5	Portland	New Orleans	General	1,750	2,122	1,504
Edgar F. Luckbach	18	19.05	19	6.36	19	13.45	19	13.45	American	Luckenbach Line	425.0	57.3	26.0	Portland	New Orleans	(14)	6,716	8,568	6,565
Shreveport [1]	18	19.05	19	7.31	19	14.50	19	14.50	American	Walker & Daly (S. B.)	435.0	56.0	26.6	Los Angeles	Fall River	Crude oil	9,285	7,411	5,103
Sagadahoc	19	3.00	19	8.31	19	15.55	19	15.55	American	Argonaut Steamship Lines	420.5	54.2	26.0	Seattle	New York	General	8,000	7,340	5,342
Gymeric [1]	19	7.30	19	10.00	19	17.30	19	21.15	British	Bank Line, Ltd	420.3	54.6	25.6	San Francisco	London	Gasoline	8,597	6,501	4,459
Santa Paula	19	8.45	19	10.57	19	18.10	19	18.10	American	Pacific Mail Steamship Co	404.6	53.9	24.6	Seattle	Baltimore	General	5,300	6,756	4,775
Oregoma	19	12.40	19	14.59	19	21.45	20	10.39	British	Pacific Steam Navigation Co	511.6	62.2	27.6	Talcahuano	Liverpool	General	6,635	12,459	8,323
Helder	19	13.20	19	14.51	19	23.05	20	11.42	Dutch	Royal Netherlands W. I. Mail	370.0	50.0	22.0	Talcahuano	Hamburg	General	5,506	5,117	3,807
Chilore	19	7.08	19	16.33	20	16.40	20	17.25	American	Ore Steamship Corporation	549.6	72.2	33.0	Cruz Grande	Baltimore	Iron ore	19,000	14,538	9,348
Brockdale	19	17.50	20	6.26	20	17.25	20	17.25	British	Rossal Steamship Co., Ltd	350.0	46.2	23.6	Caleta Colosa	Newport News	Nitrate of soda	5,398	....	....
Lime Branch	19	20.50	20	7.40	20	17.55	20	19.10	British	F. & W. Ritson	396.0	56.2	23.6	Valparaiso	Liverpool	General	7,200	6,587	5,039
Sucubaco	20	11.45	20	12.20	20	19.10	20	19.10	American	Transmarine Corporation	324.0	46.2	20.6	San Pedro	New York	(15)	3,985	3,984	2,612
W. E. Hutton [1]	20	13.25	20	14.23	20	22.25	21	1.20	American	Pure Oil Steamship Co	435.0	56.0	28.8	Los Angeles	Philadelphia	Crude petroleum	10,445	7,481	5,120

[1] Tanker. [12] For orders. [13] Frozen meat, wool, butter, and general. [14] Canned goods, shingles, general. [15] Lumber and canned salmon.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
October 14	Atenas	United Fruit Co	New Orleans via Habana.
October 14	Toloa	United Fruit Co	Port Limon.
October 15	Calamares	United Fruit Co	New York via Habana.
October 15	San Blas	United Fruit Co	Boston via Habana.
October 17	Suriname	United Fruit Co	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
October 14	Toloa	United Fruit Co	New York via Habana.
October 14	Atenas	United Fruit Co	Bocas del Toro.
October 16	Ulysses	Panama Railroad Steamship Line	Norfolk.
October 17	Atenas	United Fruit Co	New Orleans via Habana.
October 17	San Blas	United Fruit Co	Boston via Port Limon.

* Other than ships passing through the Canal.

(Continued on page 172, column 2.)

Announcement.—Navy Day, October 27, 1923.

BALBOA HEIGHTS, C. Z., October 23, 1923.

October 27 is the birthday of Theodore Roosevelt and the day chosen to be celebrated as Navy Day.

The Panama Canal was built, in large part, to augment the mobility and effectiveness of our Navy. The splendid men and ships of our fleets are familiar to us by close association. The Navy, more than any other institution, is the most potent symbol of our nation's strength because it carries our message over all the waters of the earth.

Very fortunately the men of our Navy are imbued with high ideals, and it is an honor and pleasure to celebrate Navy Day with them so that it may be known that, as a Nation and as individuals, we take pride in this exponent of our place among nations.

M. L. WALKER,
Acting Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 20, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Toloa	United Fruit Co.	October 14.	October 14.	3	102
Atenas	United Fruit Co.	October 14.	October 14.	294	161
Calamares	United Fruit Co.	October 16.	October 17.	148	209
Balboa	Cia. Costanera Colombiana	October 16.		24	
Huallaga	Peruvian Line	October 16.	October 17.	3,308	
Almagro	Pacific Steam Navigation Co.	October 17.	October 18.	90	
Atenas	United Fruit Co.	October 17.	October 17.	2	8
Suriname	United Fruit Co.	October 17.	October 18.	428	97
Metapan	United Fruit Co.	October 17.	October 18.	211	124
Manuel Arnus	Spanish Line.	October 18.	October 19.	196	
Nitro	U. S. Navy.	October 18.		283	
Bologna	Italian Line.	October 19.	October 20.	108	
Orcoma	Pacific Steam Navigation Co.	October 19.	October 20.	11	
Essequibo	Pacific Steam Navigation Co.	October 20.	October 21.	422	
Zacapa	United Fruit Co.	October 20.	October 21.	70	

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective September 26, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Brooze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.61
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	.14

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengersor cargo, per net vessel ton (each 100 cubicfeet) of actualearning capacity.. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20

Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.

6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 170.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
October 17.	Atenas	United Fruit Co.	Bocas del Toro.
October 17.	Metapan	United Fruit Co.	New York via Kingston.
October 18.	Tivives	United Fruit Co.	Columbia.
October 20.	Zacapa	United Fruit Co.	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
October 17.	Calamares	United Fruit Co.	Port Limon.
October 18.	Metapan	United Fruit Co.	Colombia.
October 18.	Tivives	United Fruit Co.	New York via Kingston.
October 18.	Surinamne	United Fruit Co.	New Orleans via wayports.
October 19.	Cristobal	Panama Railroad Steamship Line.	New York via Haiti.

PORT OF BALBOA.

*ARRIVALS.

Date.	Vessel.	Line.	From—
October 15.	Akera [1]	Union Oil Co. of California	San Francisco.
October 20.	Talaralite [1]	Imperial Oil Co.	Talara.

*DEPARTURES.

Date.	Vessel.	Line.	For—
October 18.	Akera [1]	Union Oil Co. of California	San Pedro.

[1] Tanker.

*Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., October 31, 1923. No. 12.

Slide Movement in Gaillard Cut.

On the morning of October 28 a slide involving from 250,000 to 300,000 cubic yards of material developed on the west bank of the Canal between stations 1729 and 1740, north of Culebra. It was approximately 1,100 feet long and at the point of greatest encroachment extended 150 feet into the channel. There was ample width and depth to the east of the slide for the passage of ships of any draft, but to facilitate the work of the two dipper dredges engaged in clearing the channel, ships in transit through the Canal are assembled on either side of the obstruction and then held until 2 o'clock in the afternoon, when the dredges are shifted and the waiting vessels passed through. There has been no enlargement of the slide subsequent to the original movement, and it is estimated that from one month to 6 weeks will be required for entirely clearing the channel.

Collision in Cristobal Harbor.

On October 28 at 6.22 a. m., there was a collision in Cristobal Harbor between the steamship *Abangarez* of the United Fruit Co., which was entering port, and submarine *O–5*, proceeding from Coco Solo to Balboa, The latter vessel sank immediately. When the surviving members of the crew were mustered it was found that five men were missing. These were: Clyde Edward Hughes, machinist mate, first class; Thomas T. Metzler, fireman, first class; Lawrence W. Brown, chief electrician's mate; Henry Breault, torpedo man, second class; Fred C. Smith, mess helper. Efforts were at once started to raise the sunken submarine by Navy and Panama Canal divers working with the floating crane *Ajax*, which was brought through the Canal from Paraiso for this emergency. The submarine was brought to the surface at 1 o'clock on the afternoon of October 29, when two of the missing men, Lawrence W. Brown and Henry Breault, were taken out alive. The bodies of Thomas T. Metzler and Fred C. Smith were afterwards found floating in the bay. The body of Clyde Edward Hughes had not been recovered three days after the accident.

Heavy Rains Over Gatun Lake Watershed.

Heavy rains over the watershed of Gatun Lake October 21 and 22, caused a rate of run-off into the lake not previously attained since the opening of the Canal, and brought about an interruption of traffic on October 23, when no ships were allowed to begin the transit of the Canal between 6.30 a. m. and 3.30 p. m. The interruption was due in part to a strong current at Gamboa, where the waters of the Chagres River reach the Canal channel, and in part to the use of the lock culverts to discharge excess water from the lake. Eleven gates of the spillway were

opened, and when the flood was at its height the sidewall culverts at Gatun and Pedro Miguel Locks were also opened.

In the afternoon of October 23, the 19 ships which had been delayed at the ends of the Canal were taken through the first locks, and on October 24 they completed transit. Thirty-one ships made the transit on October 24.

The surface of Gatun Lake rose from an elevation of 86.10 feet above sealevel on October 21 to a maximum of 87.48 in the early morning of October 23. This represents an increase in storage of 6,000,000,000 cubic feet. The discharge through spillway gates and lock culverts aggregated about 175,000 cubic feet per second. It is estimated that at the height of the flood the water was entering the lake at approximately 300,000 cubic feet per second, but as the heavy discharge had been begun well before this there was a margin of space sufficient to keep the final elevation within bounds. The precipitation is reported from stations up the Chagres River, and before the waters of a freshet reach the lake the spillway has been used to discharge a corresponding amount.

The Chagres River reached an elevation of 117.4 feet at Alhajuela, exceeding its elevation at any time since 1909, when a flood record of 121 feet was set.

The situation was aggravated locally by small slides and washouts on the Panama Railroad, a break in the water main from the Chagres River, supplying Panama City and the towns at the Pacific end of the Canal Zone, and a break in the transisthmian duct line which interrupted telephone, telegraph, and cable communication. It also became necessary to strengthen the Mindi Dike, built to prevent the flow of water from the spillway into the Canal channel below Gatun.

During Wednesday, October 24, rains started again, and conditions in the afternoon became nearly as bad as on the previous day. Canal traffic was suspended at 5 p. m., and the sidewall culverts at the Gatun and Pedro Miguel Locks were used again to spill water from the lake. In all, 8 spillway gates and 4 culverts discharged all night. A ninth gate began discharging the next morning, continuing until 6.50 p. m. on the 25th.

While the Chagres River registered two of the greatest rises experienced since the flood of 1909, this flood was due primarily to heavy rainfall over the surface of the lake itself rather than to the run-off from the watershed. During the 48 hours ending at midnight on October 24th, 27.9 inches had fallen at Gatun, 27.6 at Colon, and 26.1 at Monte Lirio. All rainfall records on the Atlantic side for the complete month of October were broken in only four days from October 22 to 25.

No damage was done at the locks, spillways or hydro-electric plant. Temporary blocking of the strut openings at the Pedro Miguel Lock was necessary to prevent the flooding of the tunnels. In spite of the difficulties created, the passage of ships was delayed only 9 hours at the height of the flood on October 23 and for a brief period late in the afternoon of October 24.

Work Done in Connection with Flood.

THE PANAMA CANAL, EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., October 31, 1923.

All concerned—The undersigned desires to express to all the personnel of the Canal and the Railroad his appreciation of the splendid work done during the recent storm and the succeeding days.

It has been clearly proved that the old "Isthmian Spirit," which conquered all difficulties, is alive today.

M. L. WALKER, *Acting Governor.*

CANAL WORK IN SEPTEMBER.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of September, 1923:

BALBOA HEIGHTS, C. Z., October 23, 1923.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of September, 1923:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 413. In addition to commercial transits, there were 9 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 27 transits of Government vessels on which no tolls were paid, making the total transits for the month 449, or an average of 14.97 transits per day.

Tolls for the month aggregated $1,902,453.61 on the 413 commercial vessels and $18.95 on the 9 launches, making a total of $1,902,472.56, or an average of $63,415.75 per day. In addition to above tolls there was also collected $419.70 against a vessel that transited the Canal in July. This $419.70 is not included in any of the figures that follow in this report.

The average daily number of commercial transits was 13.77 as compared with 14.65 in August, 1923, and 15.29 in July, 1923.

The total number of vessels and craft of all kinds transiting the Canal during the month of September, 1923, as compared with September, 1922, and September, 1921, is shown in the following table:

	September, 1923.	September, 1922.	September, 1921.
Commercial vessels	413	240	221
Noncommercial vessels, Army and Navy	27	18	37
Launches (under 20 tons measurement)	9	11	2
Total vessels and craft through Canal	449	269	260

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the Locks as follows:

	Northbound.	Southbound.	Total.
Gatun	13	12	25
Pedro Miguel	24	18	42
Miraflores	26	20	46

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month to the end of September during the calendar years 1922 and 1923:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January	210	352	846,516	1,610,692	807,298	1,591,932	$847,767.55	$1,505,285.55
February	212	326	886,535	1,529,517	838,074	1,563,278	855,265.18	1,423,954.21
March	234	409	975,811	1,988,192	960,089	1,940,928	955,725.76	1,827,718.44
April	230	404	974,833	2,007,600	1,046,047	2,187,145	953,256.11	1,878,938.15
May	243	419	1,032,816	2,128,414	1,158,507	2,265,083	1,015,057.37	1,972,216.04
June	228	417	970,713	2,035,902	977,478	2,096,446	932,290.42	1,898,043.80
July	251	471	1,127,871	2,310,027	1,211,100	2,337,784	1,094,127.42	2,124,410.32
August	290	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,410	2,014,552	1,138,188	2,138,703	1,020,064.55	1,902,453.61
Total	2,158	3,668	8,969,638	17,887,606	9,302,731	18,209,049	8,740,803.11	16,583,677.09

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 9 months of the present calendar year over the corresponding period of the past calendar year has been 71.56 per cent in

number of vessels, 99.43 per cent in Panama Canal net tonnage, 96.60 per cent in cargo tonnage and 89.73 per cent in tolls.

The following is a summary of the commercial traffic in September, 1923, as compared with September, 1922, and September, 1921, and the average month's traffic for the fiscal year which ended June 30, 1923:

	September, 1923.	September, 1922.	September, 1921.	Average per month for fiscal year 1923.
Number of vessels	413	240	221	331
U. S. equivalent tonnage	1,645,379	843,113	748,744	1,247,208
Panama Canal net tonnage	2,044,552	1,070,410	925,137	1,551,482
Registered gross tonnage	2,611,311	1,333,101	1,167,220	1,969,412
Registered net tonnage	1,639,557	837,935	743,574	1,240,808
Tolls	$1,902,453.61	$1,020,064.55	$892,001.54	$1,459,016.63
Tons of cargo carried	2,168,703	1,138,188	754,894	1,630,656

The average daily number of transits, tonnage, tolls and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for fiscal year 1923.
	September, 1923.	September, 1922.	September, 1921.	
Number of transits	13.77	8.97	8.67	10.87
Panama Canal net tonnage	54,846	39,014	30,838	50,975
Tolls	$63,415 12	$34,0 2 15	$23,733.38	$47,967.67
Tons of cargo carried	72,290	37,939	25,163	53,611

From the foregoing it will be seen that the traffic in September, 1923, as compared with September, 1922, increased as follows: Number of commercial transits 72.08 per cent; Panama Canal net tonnage 91 per cent; tolls 86.5 per cent; and cargo 90.55 per cent.

AVERAGE TONNAGE, TOLLS AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and cargo per vessel transiting the Canal during the month of September, 1923, as compared with September, 1922, and September, 1921, are shown in the following tabulation:

	Average per vessel.		
	September, 1923.	September, 1922.	September 1921.
United States equivalent tonnage	3,984	3,513	3,388
Panama Canal net tonnage	4,950	4,460	4,185
Registered gross tonnage	6, 30	5,555	5,282
Registered net tonnage	3,970	3,491	3,365
Tolls	$4,606.43	$4,250.27	$4,036.21
Tons of cargo (including vessels in ballast)	5,251	4,742	3,416
Tons of cargo (laden vessels only)	6,552	5,221	4,289

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of September for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
September, 1920	12	44,651	50,450	11	45,596	59,781
September, 1921	25	134,239	72,620	15	88,011	1 4,642
September, 1922	34	175,211	162,955	29	144 2,1	192,300
September, 1923	90	502,173	183,017	108	603,748	1,022,999

UNITED STATES SHIPPING BOARD VESSELS.

Fourteen vessels of the United States Shipping Board transited the Canal during the month of September, 1923; of these, 10 were employed in the United States intercoastal trade. Ten of the 14 were tankers and 4 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of September for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net. tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
Sept., 1921.....	10	53,816	38,368	16	84,433	109,610	26	138,249	147,978
Sept., 1922.....	8	43,796	33,559	5	24,116	36,935	13	67,912	70,494
Sept., 1923.....	7	35,825	57,454	7	36,758	13,779	14	72,583	71,233

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of September, 1923, by principal geographical areas as compared with September, 1922, and September, 1921; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

	September, 1923.	September, 1922.	September, 1921.
Origin, Pacific-bound tonnage.			
East coast of United States	729,012	369,756	265,359
Europe (including British Isles)	190,566	170,003	175,768
East coast of Mexico	5,798	4,382	9,587
Cristobal, C. Z.	14,249	17,271	21,202
East coast of South America	14,462	9,019	.....
Miscellaneous	26,750	11,985	15,303
Totals	980,837	582,416	487,219
Destination, Pacific-bound tonnage.			
West coast of United States	610,634	257,780	164,577
West coast of South America	155,577	122,215	105,914
Australasia	90,609	76,203	70,551
Far East	73,264	99,828	90,256
Canada west coast	31,229	24,021	21,430
West coast of Mexico and Central America	13,958	2,369	1,624
Miscellaneous	5,536	.....	32,867
Totals	980,837	582,416	487,219
Origin, Atlantic-bound tonnage.			
West coast of United States	749,665	244,463	229,626
West coast of South America	243,118	143,762	110,248
Australasia	16,680	27,451	68,661
Far East	10,194	32,903	20,628
Canada west coast	23,678	37,993	21,480
West coast of Mexico and Central America	9,127	1,422	3,910
Miscellaneous	11,253	.....	23,504
Totals	1,063,715	487,994	478,057
Destination, Atlantic-bound tonnage.			
East coast of United States	735,284	263,987	194,279
Europe (including British Isles)	229,343	165,132	231,830
East coast of Mexico	38,939	10,868	27,256
Cristobal, C. Z.	21,720	21,782	22,022
East coast of South America	2,740	.....	622
Miscellaneous	35,689	26,225	2,048
Totals	1,063,715	487,994	478,057

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of September, 1923, was $1,902,453.61. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively throughout as a basis for collecting tolls this revenue would have been $2,246,780.64, a difference of $344,327.03. This difference is distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$42,148.93	$30,366.04	$72,514.97
Chilean	4,075.95	4,074.30	8,150.25
Danish	.....	2,005.30	2,005.30
Dutch	5,837.94	4,108.90	9,946.84

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
French	$814.35	$3,576.70	$4,391.05
German	3,432.65	9,734.10	13,166.75
Italian	636.30	1,701.10	2,337.40
Japanese	2,706.40	2,386.20	5,092.60
Jugo-Slavic	1.416.90	.....	14,16.90
Norwegian	2,589.20	6,696.80	9,286.00
Panaman	.....	858.90	858.90
Peruvian	4,666.65	3,308.45	7,975.10
Spanish	774.80	571.40	1,346.20
Swedish	1,669.95	5,207.50	6,877.45
United States	62,162.62	136,798.70	198,961.32
Totals	132,932.64	211,394.39	344,327.03

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$117,449.95	$48,052.51	$165,502.46
United States foreign trade	18,699.70	13,463.46	32,163.16
United States to Canal Zone trade	649.05	646.65	1,295.70
Totals	136,798.70	62,162.62	198,961.32

Of the additional $344,327.03 tolls that would have been assessed by using exclusively the Panama Canal rules of measurement, $10,672.40 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurements, of vessels transiting the Canal in September, 1923, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included.

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, September, 1923.
British	1.00	1.52	1.26
Chilean	.16	.57	.36
Colombian	1.12	.98	1.05
Danish	.....	1.66	1.66
Dutch	1.07	1.52	1.24
Finnish	.....	1.69	1.69
French	.47	1.34	.96
German	.73	1.29	1.08
Italian	.26	1.10	.87
Japanese	.77	1.41	1.07
Jugo-Slavic	1.58	.....	1.58
Norwegian	.73	1.58	1.44
Panaman	.....	1.78	1.78
Peruvian	.13	.71	.42
Spanish	.11	.03	.06
Swedish	1.07	1.54	1.42
United States	1.02	1.66	1.49
Average ratio, September, 1923	.94	1.58	1.36
Average ratio, September, 1922	.95	1.40	1.17
Average ratio, September, 1921	.81	1.28	1 04

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.36	1.69	1.09
United States and South America	.28	1.64	1 02
United States and Europe	.41	1.61	1.15
United States and Far East	1.10	.91	1.22
Europe and South America	.84	1.38	1.19
Europe and Canada	.74	.95	.84
Cristobal and South America	.13	.75	.51
United States and Australasia	1.28	.07	1.14
United States and Canada	.99	1.22	1.12

COMMODITY STATISTICS.

Cargo moving through the Canal in September, 1923, totaled 2,168,703 long tons. This is about the same as August, 1923, which was 2,168,750 and is nearly double the amount for September, 1922, which was 1,135,188. There were 511,719 tons passing from Atlantic to Pacific, as compared with 467,836 in September, 1922; and 1,656,984 tons passing from Pacific to Atlantic, as compared with 670,352 in September, 1922. The Pacific to Atlantic tonnage was approximately two and one-half times that of the same month in 1922; the increase in the Atlantic to Pacific tonnage was comparatively small, being only about one per cent.

Mineral oils made up nearly 60 per cent of the Pacific to Atlantic tonnage, with 982,416 tons, as compared with 83,226 tons in September, 1922. Lumber and nitrates were the next heaviest items, with 119,262 tons of lumber and 173,324 tons of nitrates, as against 88,111 tons of lumber and 94,556 tons of nitrates in September, 1922. From the Atlantic to the Pacific, manufactured goods, with 111,841 tons, and mineral oils, crude and refined, with 75,030 tons, make up the larger items, both items being but slightly larger than in the same month in 1922.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit, and while incomplete are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	September, 1923.	September, 1922.	September, 1921.
Atlantic to Pacific.			
Manufactured goods:			
Iron and steel	90,289	79,036	50,438
Railroad material	5,481	16,056	9,391
Machinery	11,916	7,174	6,641
Textiles	4,155	4,470	729
Mineral oils:			
Crude petroleum	30,196	8,049	17,981
Lubricating	3,208	11,235	.....
Refined	41,626	54,061	19,781
Metal, various	15,768	6,273	8,467
Coal and coke	31,392	8,371	16,050
Cotton	2,060	4,562	19,207
Ammonia	4,645	4,795	4,749
Automobiles	6,241	1,162	444
Cement	22,534	1,517	431
Paper	7,013	5,227	1,210
Sulphur	19,222	12	11,551
Other and general	215,973	255,836	133,650
Totals	511,719	467,836	309,720
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	944,148	65,366	4,820
Refined oil	38,268	17,860	18,278
Nitrates	173,324	94,556	22,758
Lumber	119,262	88,111	26,750
Barley	43,923	59,730	107,831
Borax	3,666	2,389	1,631
Canned goods	45,407	58,904	56,961
Beans	1,613	2,735	6,774
Coffee	3,209	3,631	6,013
Cold storage	2,500	3,232	10,600
Metals, various	25,483	28,777	23,829
Ores, various	75,789	52,446	6,432
Rice	203	10,275	7,205
Cotton	8,495	4,027	5,392
Sugar	11,049	11,883	6,667
Wool	1,255	7,121	5,522
Wheat	49,952	43,711	75,486
Other and general	109,438	115,598	61,225
Totals	1,656,984	670,352	454,174

A detailed statement of traffic through the Panama Canal by trade routes for the month of September, 1923, was published in THE PANAMA CANAL RECORD for October 17, 1923. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of September, 1923, as compared with the same month in the years 1922 and 1921.

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	September, 1923.	September, 1922.	September, 1921.	September, 1923.	September, 1922.	September, 1921.
United States intercoastal	90	34	25	108	29	15
United States and South America	18	14	9	22	17	8
Europe and South America	12	11	10	24	11	9
United States and Far East	13	19	15	2	5	2
Europe and United States	12	13	18	20	15	24
Europe and Canada	3	4	3	2	4	6
Europe and Australasia	6	5	4	2	4	4
United States and Australasia	8	7	4	1	1	1
Mexico and South America	.....	1	1	2	.....	2
Cristobal and South America	5	7	12	7	10	11
United States and Canada	3	.....	4	4	3	1
Miscellaneous	28	18	23	21	15	10
Totals	198	133	128	215	114	93
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	502,173	175,211	134,239	603,748	144,231	88,111
United States and South America	74,282	48,493	30,257	90,007	69,217	27,358
Europe and South America	56,949	51,429	36,538	105,112	44,709	34,236
United States and Far East	69,023	95,710	73,761	10,194	29,646	8,377
Europe and United States	61,143	60,888	78,307	99,720	75,988	112,759
Europe and Canada	15,243	24,021	15,086	13,437	22,272	31,741
United States and Australasia	38,150	40,068	18,655	4,944	4,442	4,730
Mexico and South America	.....	4,382	4,408	9,554	.....	9,587
Cristobal and South America	9,666	13,667	17,658	14,819	17,291	12,409
United States and Canada	15,986	.....	14,064	10,858	15,721	4,971
Miscellaneous	38,222	68,547	107,661	101,322	64,477	60,224
Totals	980,837	582,416	530,634	1,063,715	487,994	394,503
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	183,017	162,955	72,620	1,022,999	192,300	104,642
United States and South America	20,817	17,786	8,415	147,390	111,293	21,979
Europe and South America	47,912	27,932	12,365	145,916	64,206	44,570
United States and Far East	76,489	118,483	105,935	9,280	43,119	11,516
Europe and United States	24,867	38,003	280	159,247	119,288	178,588
Europe and Canada	11,290	16,700	12,115	12,703	30,693	47,713
United States and Australasia	48,897	40,650	16,900	350	3,000	5,828
Mexico and South America	.....	7,823	7,889	.....	.....	.....
Cristobal and South America	1,304	2,540	2,362	11,111	6,941	8,424
United States and Canada	15,873	.....	4,774	25,484	19,679	.....
Miscellaneous	81,353	34,964	57,065	122,534	79,833	30,914
Totals	511,719	467,836	300,720	1,656,984	670,352	454,174

LATIN-AMERICAN TRAFFIC.

Tonnage of vessels in the Latin-American trade shows a marked increase in both directions and in both Panama Canal net tonnage and cargo tonnage for the month of September, 1923, as against the corresponding month for the years 1922 and 1921. Cargo tonnage, Pacific to Atlantic, for the month was 415,589 as against 231,140 for September, 1922, and 81,621 for September, 1921; and from the Atlantic to Pacific, 106,726 for September, 1923, as against 66,758 for September, 1922, and 62,130 for September, 1921.

Tolls also show a corresponding increase being $295,958.08 from the Pacific to the Atlantic, as against $161,884.52 for September, 1922, and $107,251.34 for September, 1921; from the Atlantic to the Pacific tolls were $170,277.03 for September, 1923, as against $126,068.01 for September, 1922, and $110,316.04 for September, 1921.

The principal commodities routed to Latin-American points were coal and coke, cement, manufactured goods, crude oil and paper. Copper, various ores, nitrates, cotton, guano, coffee, crude oil, and sugar make up the larger items from Latin-American points.

Nitrate shipments from South America were 173,324 long tons, as against 112,114 tons in August and 185 080 tons in July, 1923.

In the tabulation below is shown the tonnage and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessel; together with the totals in each direction for the years 1922 and 1921:

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	17	48,436	57,994	80,020	48,578	$57,657.41	52,541
Chilean	3	6,753	10,431	13,640	7,758	8,441.25	1,671
Colombian	1	334	335	864	614	402.00	375
Dutch	2	7,918	10,854	12,703	7,663	9,935.00	11,300
French	1	4,326	4,363	5,903	3,743	5,235.60	999
German	3	10,601	12,101	14,587	8,959	12,982.70	8,703
Italian	1	3,306	3,974	5,488	3,276	4,132.50	1,013
Japanese	3	12,381	13,655	14,539	12,128	13,440.63	7,832
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,300
Norwegian	1	2,717	4,230	4,341	2,723	3,396.25	505
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,016
Spanish	2	4,733	5,572	6,792	3,894	4,011.87	.....
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,218
United States	13	42,334	50,259	73,327	42,362	41,079.32	12,253
Totals, September, 1923	52	151,519	186,976	251,105	152,234	170,277.03	106,726
Totals, September, 1922	41	109,177	140,109	180,347	109,738	126,068.01	66,758
Totals, September, 1921	43	92,630	120,305	158,344	95,074	110,316.04	62,130
Pacific to Atlantic.							
British	28	108,501	128,175	175,841	108,324	$139,115.53	187,724
Chilean	3	6,786	10,434	14,161	7,848	8,482.50	5,927
Colombian	1	334	335	864	614	402.00	327
Danish	4	10,273	12,257	15,401	9,512	12,703.10	20,356
Dutch	3	10,017	13,493	14,550	8,854	12,291.50	20,578
Finnish	1	1,893	1,889	2,039	1,898	2,266.80	3,200
French	2	7,166	8,227	11,446	7,281	8,957.50	13,014
German	5	14,795	20,337	23,300	14,586	18,380.85	26,293
Italian	3	9,362	11,154	15,371	9,091	11,700.50	12,223
Japanese	2	7,410	9,558	12,031	7,346	9,262.50	16,077
Norwegian	6	14,436	16,456	20,377	13,492	17,696.40	27,341
Panaman	1	4,014	4,897	6,383	4,067	5,017.50	8,701
Peruvian	2	2,496	5,356	8,049	4,187	3,118.75	3,811
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	100
Swedish	1	3,274	3,708	4,257	2,862	4,092.50	7,300
United States	10	30,740	37,643	51,280	31,037	38,365.15	62,617
Totals, September, 1923	73	234,964	287,826	380,970	234,341	295,958.08	415,589
Totals, September, 1922	51	121,308	169,428	218,320	132,480	161,884.52	231,140
Totals, September, 1921	40	95,813	117,730	161,562	100,156	107,251.34	81,621

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 57.63 per cent of the total transits of the Canal during the month, comprised approximately 63 per cent of the net tonnage, and carried approximately 64 per cent of the total cargo in transit through the Canal.

The following statement shows the commercial traffic through the Canal in September, 1923, classified according to nationality of vessels by directions, and then the combined traffic in both directions together with totals for September 1922 and 1921:

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	50	177,606	227,463	282,156	176,100	$236,499.47	176,354
Chilean	3	6,753	10,431	13,640	7,758	8,441.25	1,671
Colombian	1	334	335	864	614	402.00	375
Dutch	6	25,334	34,103	41,017	25,129	29,274.78	23,521
French	3	13,289	14,300	18,207	11,470	16,348.05	6,789
German	4	15,510	18,781	22,703	13,846	19,118.95	13,791
Italian	1	3,306	3,974	5,488	3,276	4,132.50	1,013
Japanese	6	23,495	26,810	33,833	22,700	27,243.68	17,021
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367 50	6,300
Norwegian	4	15,879	19,870	21,679	13,168	15,612.88	5,905
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,016
Spanish	3	7,696	9,301	11,432	6,615	7,711.84	398

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Swedish	2	3,945	5,379	6,514	4,920	$4,931.25	5,768
United States	111	482,927	598,331	768,524	480,768	487,006.82	251,797
Totals, September, 1923	198	782,467	980,837	1,242,798	775,346	834,714.72	511,719
Totals, September, 1922	126	460,366	582,416	725,894	453,209	545,856.96	467,836
Totals, September, 1921	128	434,250	530,634	669,087	427,395	518,793.61	300,720
Pacific to Atlantic.							
British	41	156,011	189,229	252,497	155,767	190,912.28	269,781
Chilean	3	6,786	10,464	13,661	7,848	8,482.50	5,927
Colombian	1	334	335	864	614	402.00	327
Danish	4	10,273	12,257	15,401	9,512	12,703.10	20,356
Dutch	3	10,017	13,493	14,550	8,851	12,291.50	20,578
Finnish	1	1,893	1,889	2,039	1,898	2,266.80	3,200
French	4	14,698	18,064	23,733	14,933	18,372.50	24,250
German	7	22,328	31,096	35,863	22,087	27,797.10	40,241
Italian	3	9,362	11,154	15,371	9,091	11,700.50	12,223
Japanese	4	16,745	19,264	24,654	16,458	20,730.60	27,090
Norwegian	11	34,412	41,136	51,155	33,270	42,666.40	64,979
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,701
Peruvian	2	2,495	5,356	8,049	4,187	3,118.75	3,811
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	100
Swedish	3	10,066	14,825	15,457	11,428	12,582.50	22,848
United States	126	560,191	686,359	886,219	560,855	694,589.86	1,132,572
Totals, September, 1923	215	862,912	1,063,715	1,371,516	864,211	1,067,738.89	1,656,984
Totals, September, 1922	114	382,747	487,994	607,207	384,726	474,207 57	670,352
Totals, September, 1921	93	314,494	394,503	498,133	316,179	378,207.93	454,174
Combined traffic.							
British	91	333,617	416,692	534,653	331,867	397,411.75	446,135
Chilean	6	13,539	20,895	27,301	15,606	16,923.75	7,598
Colombian	2	668	670	1,728	1,228	804.00	702
Danish	4	10,273	12,257	15,401	9,512	12,703.10	20,356
Dutch	9	35,351	47,596	55,567	33,983	41,566.28	44,099
Finnish	1	1,893	1,889	2,039	1,898	2,266.80	3,200
French	7	27,987	32,364	41,940	26,403	34,720.55	31,039
German	11	37,838	49,877	58,566	35,933	46,916.05	54,032
Italian	4	12,668	15,128	20,859	12,367	15,833.00	13,236
Japanese	10	40,240	46,104	58,487	39,158	47,974.28	44,111
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,300
Norwegian	15	50,231	61,006	72,834	46,438	58,279.28	70,884
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,701
Peruvian	5	6,194	13,098	20,501	10,464	7,742.50	4,827
Spanish	4	10,980	13,198	17,049	9,957	11,816.84	498
Swedish	5	14,011	20,204	21,971	16,348	17,513.75	28,616
United States	237	1,043,121	1,284,690	1,654,743	1,041,623	1,181,596.68	1,384,369
Totals, September, 1923	413	1,645,379	2,014,552	2,614,314	1,639,557	1,902,453.61	2,168,703
Totals, September, 1922	240	843,113	1,070,410	1,333,101	837,935	1,020,064.55	1,138,188
Totals, September, 1921	221	748,744	925,137	1,167,220	743,574	897,001.54	754,894

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and Nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. P. C. net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. P. C. net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	6	23,968	$17,334.18	2	9,554	$6,878.88
United States	59	352,792	254,756.82	.....	.....	.....
General cargo ships:						
British	6	26,937	19,394.64	[1] 1	2,567	2,908.75
Dutch	2	12,106	9,321.03	.....	.....	.....
Japanese	1	4,704	3,386.88	.....	.....	.....
Norwegian	2	11,754	8,462.88	.....	.....	.....
Spanish	2	5,572	4,011.84	.....	.....	.....
United States	.....	.....	.....	1	5,233	3,767.76
Totals	78	437,833	316,668.27	4	17,354	13,555.39

[1] Cableship.

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of September, 1923, by kinds of vessels is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	P. C. net tonnage.	Tolls.	No. of ships.	P. C. net tonnage.	Tolls.
Tank ships:						
Laden	5	26,790	$28,036.25	87	512,399	$537,364.65
Ballast	65	376,760	272,091.00	2	9,554	6,878.88
General cargo and passenger ships:						
Ballast	13	61,073	44,577.27	2	7,800	6,676.51
Laden	115	516,214	490,010.20	124	533,962	516,818.85
Totals	198	980,837	834,714.72	215	1,063,715	1,067,738.89
Steamers	189	941,961	799,598.81	205	1,027,753	1,033,331.24
Motor ships	8	38,804	35,037.16	6	31,905	29,543.75
Motor schooners	1	72	78.75	2	144	157.50
Sailing vessels	.....	.....	.....	2	3,912	4,706.40
Totals	198	980,837	834,714.72	215	1,063,715	1,067,738.89

Of the 394 steam vessels, 283 were oil burners, 108 coal burners, and 3 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statements show the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of September, 1923. If tolls had been assessed against these vessels at commercial rates the amount would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	2	[1] 12,274	$6,137.00	.....	.....	.....
Submarines	5	[1] 2,600	1,300.00	5	[1] 2,600	$1,300.00
Submarine tender	1	[1] 1,408	704.00	.....	.....	.....
Subchaser	1	[1] 77	38.50	1	[1] 77	38.50
Supply ships	2	[2] 9,158	10,989.60	1	[1] 1,250	625.00
Tanker	1	[1] 16,800	8,400.00	.....	.....	.....
Tugs	3	[1] 3,000	1,500.00	2	[1] 2,000	1,000.00
Transports	.....	.....	.....	2	[3] 6,958	8,697.50
U. S. Army vessels:						
Transport	.....	.....	.....	1	[3] 5,389	6,736.25
Totals	15	45,317	25,069.10	12	18,274	18,397.25

[1] Displacement tonnage. [2] Panama Canal net tonnage. [3] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	1,500
Pacific to Atlantic	15,205
Total	16,705

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	7	19	$17.45
Pacific to Atlantic	2	2	1.50
Totals	9	21	18.95

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of September, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Totals.
Local cargo arriving....tons..	39,270	50,205	89,475
Local cargo shipped....tons..	3,787	878	4,665
Transit cargo arriving....tons..	2,117,105	2,228,913	4,346,018
Transit cargo clearing....tons..	2,109,382	2,253,711	4,363,093
Cargo received for transshipment....tons..	16,679	202	16,881
Cargo transshipped....tons..	14,220	35	14,255
Vessels supplied with bunker coal:			
Army vessels	1	.....	1
Commercial, other than Panama Railroad	51	4	55
Panama Railroad vessels	2	.....	2
Total vessels supplied with coal	54	4	58
Coal supplied to above vessels:			
Army vessels....tons..	64	.....	64
Commercial, other than Panama Railroad....tons..	17,402	477	17,879
Panama Railroad vessels....tons..	836	.....	836
Total coal supplied to vessels....tons..	18,302	477	18,779
Coal issued, miscellaneous:			
Panama Canal departments....tons..	290	652	942
U. S. Army, excepting vessels....tons..	345	.....	345
Individuals and companies....tons..	257	.....	257
Total coal issues from Panama Canal deposits:			
September, 1923....tons..	19,194	1,129	20,323
September, 1922....tons..	12,042	751	12,793
September, 1921....tons..	13,759	1,745	15,504
Coal on hand, October 1, 1923....tons..	83,091	111	83,202
Coal on hand, September 1, 1923....tons..	90,222	1,240	91,462
Coal received during the month....tons..	12,063	.....	12,063
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	3,517.20	17,380.56	20,897.76
Panama Railroad Co....bbls..	1,508.79	1,176.75	2,685.54
Army and Navy....bbls..	350.80	117.49	468.29
Total issues and sales....bbls..	5,376.79	18,674.80	24,051.59
Loaned to U. S. Shipping Board....bbls..	18,891.40	.....	18,891.40
Returned by U. S. Shipping Board....bbls..	.....	2,858.53	2,858 53
Fuel oil lost and surveyed....bbls..	.....	18.36	18.36
Fuel oil on hand, October 1, 1923....bbls..	40,095.72	28,324.13	68,419 85
Diesel oil sold during September, 1923....bbls..	1,079.51	20.19	1,099.70
Diesel oil on hand, October 1, 1923....bbls	42,051.83	789.09	42,840.92
Oil pumped for individuals and companies....bbls..	485,285.89	615,175.51	1,101,461.40
Miscellaneous transfers....bbls..	9,321.80	429.98	9,661 78
Gasoline pumped for individuals and companies....bbls..	.....	2,057.16	2,057.16
Gasoline pumped for Panama Canal....bbls	623.05	876.00	1,499 05
Total fuel oil and gasoline handled....bbls..	521,578.44	640,110.53	1,161,688.97
Admeasurement of vessels:			
U. S. equivalent issued or made	21	8	29
Measured for Panama Canal net tonnage	4	2	6
Remeasured for Panama Canal net tonnage	26	6	32
Panama Canal net tonnage corrected	5	8	13
U. S. equivalent tonnage corrected	23	14	37
Services of harbor equipment:			
Tugs, total operating hours	375	351¼	726¼
Launches, total operating hours	1,283	1,297¾	2,580¾
Scows, total operating days	.....	7	7
Revenue from tug service, pilotage, etc.:			
Tug service	$10,356.25	$11,076.25	$21,432.50
Pilotage	12,112.00	8,460.00	20,572.00
Seaman	6,720.00	7,432.00	14,152 00
Launch service	2,041.50	3,135.50	5,177.00
Wharfage	.....	5,373.40	5,373.40
Ships measured	150.00	50.00	200.00
Miscellaneous cash collections	1,017.50	201.00	1,218.50
Vessels repaired at Panama Canal shops:			
Commercial	33	17	50
U. S. Army and Navy	4	11	15
Canal equipment	6	19	25
Vessels drydocked:			
Commercial	.....	1	1
U. S. Army and Navy	1	1	2
Canal equipment	2	5	7
Clearances issued	234	215	449
Bills of health issued	239	220	459

ALL VESSELS ENTERING AND CLEARING PORTS.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	459	2,894,601	1,817,238	432	2,701,490	1,703,514
Vessels entering port but not transiting Canal	50	277,950	164,276	11	62,191	38,238
Vessels transiting Canal and handling passengers and cargo at terminals	60	301,059	181,547	43	182,118	110,573
Ships clearing.						
All vessels, including those transiting Canal	463	2,936,901	1,842,667	433	2,705,038	1,707,554
Vessels entering port but not transiting Canal	52	293,213	172,890	12	67,389	41,392
Vessels transiting Canal and handling passengers and cargo at terminals	60	303,357	182,198	43	182,118	110,573

MOVEMENT OF PASSENGERS.

The following statement shows the number of passengers arriving and embarking at Canal ports during the month of September, 1923:

	At Cristobal.			At Balboa.		
	First class.	Others.	Total.	First class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,140	680	1,820	6	3	9
From Pacific ports	144	38	182	109	65	174
Total disembarking	1,284	718	2,002	115	68	183
Embarking:						
For Atlantic ports	1,024	406	1,430	35	6	41
For Pacific ports	91	55	146	40	34	74
Total embarking	1,115	461	1,576	75	40	115
Remaining on board vessels:						
From Atlantic to Pacific ports	460	1,193	1,653	504	1,266	1,770
From Pacific to Atlantic ports	597	732	1,329	624	673	1,297
From Atlantic to Atlantic ports	391	74	465	.....	....	.....
From Pacific to Pacific ports	.....	.....	.....	23	159	182
Total remaining on board	1,448	1,999	3,447	1,151	2,098	3,249
Total passengers arriving	2,732	2,717	5,449	1,266	2,166	3,432
Total passengers departing	2,563	2,460	5,023	1,226	2,138	3,364

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of September, 1923:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$118.80	$722.07	$1,502.18	.....	$1,175.89	$3,518.94
Panama Railroad vessels	82.35	1.46	2,181.17	.....	488.40	2,753.38
Other commercial vessels	1,290.89	5,743.86	13,596.03	$867.33	1,496.22	22,994.33
Total sales, September, 1923	1,492.04	6,470.39	17,279.38	867.33	3,157.51	29,266.65
Total sales, September, 1922	1,215.96	4,925.06	26,011.97	.....	3,002.97	35,155.96
Total sales, September, 1921	2,022.09	4,121.98	19,660.17	778.89	956.74	27,539.87
Sales at Balboa to:						
U. S. Government vessels	270.07	1,679.72	10,249.77	.....	1,596.45	13,796.01
Other commercial vessels	538.03	1,713.72	6,683.35	.....	3,435 16	12,368.26
Total sales, September, 1923	808.10	3,393.44	16,933.12	.....	5,029.61	26,164.27
Total sales, September, 1922	382.16	1,110.46	6,865.29	663.22	884.80	9,905.93
Total sales, September, 1921	764.45	3,087.63	11,978.82	2,782.05	583.72	19,196.67

The aggregate sales to government vessels during the month were $17,314.95; to Panama Railroad vessels $2,753.38; to other commercial vessels $35,362.59; making a grand total of $55,430.92.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of September, 1923, as compared with the same month in 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Sept., 1923.	Sept., 1922.	Sept., 1921.
Gatun	210	195	405	5	4	9	414	251	225
Pedro Miguel	214	200	414	9	17	26	440	270	247
Miraflores	213	200	413	10	14	24	437	269	243
	Number of Vessels put through Locks.								
Gatun	223	208	431	26	28	54	485	295	276
Pedro Miguel	217	202	419	36	32	68	487	332	288
Miraflores	217	202	419	38	35	73	492	334	285

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
U. S. Army and Navy vessels	29	26	27
Panama Canal equipment	25	42	46

The total consumption of water for lockages, loss in leakage, and maintenance was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockage	1,642,7[illegible]0,000	1,495,150,000	1,521,050,000
Leakage	30,000,000	8,800,000	20,000,000
Maintenance			1,840,000
Total consumption, September, 1923	1,672,730,000	1,503,960,000	1,542,890,000
Total consumption, September, 1922	962,410,000	989,930,000	799,100,000
Total consumption, September, 1921	878,920,000	840,290,000	815,560,000

METEOROLOGY AND HYDROGRAPHY.

The rainfall for the month was generally about normal or above except in the Pacific section where it was the lowest of any September on record. Totals ranged from 2.96 inches at Taboga to 20.01 inches on the Gatun River. The greatest amount of rainfall recorded on any one day was 4.50 inches at Cristobal on the 14th.

The estimated rainfall over the Gatun Lake watershed was 11.62 inches, compared with a 13-year mean of 11.75 inches; over the Chagres River watershed above Alhajuela it was 14.62, compared with a 22-year mean of 12.72 inches.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of September, 1923, are shown in comparison with the same month in prior years:

Rainfall.	September, 1923.	September, 1922.	September—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Total rainfall for month:					
Pacific section	4.91	6.97	11.74	5.64	8.57
Central section	11.02	9.21	15.16	6.55	11.24
Atlantic section	12.49	15.03	15.03	7.94	12.08
Maximum recorded on any one day	4.50	4.72	[1] 10.86	.....	.....
Gatun Lake watershed	11.62	12.83	16.14	8.88	11.76
Chagres River above Alhajuela	11.62	16.01	18.62	7.25	12.63
Maximum recorded for month at any one point	20.01	22.91	28.92	.....	.....
Minimum recorded for month at any one point	2.96	5.64	.....	1.12	.....

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Porto Bello December 28-29, 1909.

Rainfall.	September, 1923.	September, 1922.	September—Years of record.		
			Maximum.	Minimum.	Mean.
Hydrography.	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*
Discharge of Chagres River at Alhajuela	2,885	3,465	4,732	1,722	3,200
Maximum momentary discharge for month	13,655	27,255	[2] 170,000	.....	.....
Gatun Lake watershed total yield	7,740	8,751	11,946	4,703	8,716
Gatun Lake watershed net yield	7,300	8,301	11,248	4,620	8,187
Draft on Gatun Lake for lockages and power	2,543	2,038	[3] 2,427	[3] 1,322	[3] 1,906

NOTE—Extreme outlying stations in the Republic of Panama not included in this report.
[2] Occurred on August 21, 1914. [3] Not including August, 1914.

SEISMOLOGY.

Ten seismic tremors were recorded at Balboa Heights during the month. With the exception of the Japanese disturbance of the 1st and 2d and tremors of the 28th and 29th, all were of comparatively close origin. None of the disturbances were of sufficient intensity to be generally noticeable by people of the Canal Zone or Republic of Panama.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	September, 1923.	September, 1922.	September, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,350,700	4,179,600	5,198,300
Miraflores steam plant	.....	.....	1,970
Power distributed to consumers.....KWH.	3,778,833	3,560,193	4,396,098
Loss of power in plant, accessories, transmissions, and transformers.....KWH.	571,867	619,407	804,172
Per cent of loss of power to gross output	13.1	13.81	15.50
Water consumption.....cubic feet.	3,452,034,342	3,373,754,811	3,970,751,857
Oil consumption.....barrels.	86,339	1,648	1,953

Miscellaneous electrical repairs and installations of electric equipment were made on 28 vessels during the month. There were 260 work orders issued for work to be performed by the different sections of the Electrical Division during the month, as compared with 372 during the month of August, 1923.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 43 vessels at Cristobal and 47 at Balboa. Of these, 3 were placed in dry dock at Cristobal and 7 at Balboa. The more important repair work during the month included the following:

Steamship *Gulf State:* This vessel was towed to Balboa shops disabled on account of a wreck of her low pressure cylinder. The cylinder was dismantled, the walls brought back into position, and electric welded in place, following which the cylinder was bored. The weld was of considerable size, the cylinder being 78 inches in diameter. A new bull ring and piston rings were made for the cylinder, as well as a new piston rod.

The floating caisson, used for unwatering the locks for overhaul was dry-docked and about one-third of the wood seal renewed on account of its being teredo ridden. The wood removed is partly greenheart and a wood from Dutch Guiana called angelique or basra-locus.

The dredge *Paraiso* was placed in dry dock and stern pontoon previously constructed in Balboa shops lowered into place. This, with watertight compartments already constructed along her sides and one which is being built into her hull forward, will make her proof against sinking in case of collision from passing vessels while working in the Canal.

Work was performed on submarines *O–4*, *O–2*, *O–7*, *O–8*, *O–9*, and *O–14*, the *O–4* being placed in dry dock.

Tug *Tavernilla* was overhauled during the month and repairs made to her engines, electrical system, condenser and boilers.

The output of the foundry in patterns and castings, as compared with the preceding month was as follows:

	September, 1923.			August, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	5	423	39,067	10	310	47,652
Steel	2	120	4,653	2	189	6,729
Nonferous	5	413	6,873	5	499	15,652

There were 618 job orders on hand at the beginning of the month, 633 were authorized during the month, 639 were completed during the month, leaving 612 on hand at the close of the month.

There were 343 standing orders on hand at the beginning of the month. During the month two were authorized and none completed, leaving 345 standing orders on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of all pumping stations and of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

Item.	September, 1923.	September, 1922.	September, 1921.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	620,942,250	626,139,750	708,203,000
Filtration plants	358,431,000	357,076,000	426,862,000
Water consumed by Panama	84,279,000	80,414,000	91,415,000
Water consumed by Colon	46,976,750	56,265,500	52,807,000
Sales of water to vessels	9,545,249	7,678,082	9,992,132

Work was continued on the erection of two 80-foot radio masts at France Field; work is now 96 per cent completed. Work completed on parking space at Administration Building, Balboa Heights, and a similar parking space for 12 cars begun an completed at the Terminal Building, Balboa. Work begun on the installation of an 8-inch extra heavy oil line on docks 6 and 7, Balboa.

DREDGING.

The general movement on West Culebra continued during the month between stations 1770 and 1795, the maximum movement toward the water front on the bank being 3 feet between stations 1774 and 1776, with an average of 1.2 feet between 1770 and 1795.

Only slight movement along the water front was noted at East Culebra.

At station 1909—50 to 1911—00 the west bank broke on the night of September 9th, causing settlement of a portion of the adjacent roadway, but no material coming into the prism proper.

All other slides, including Cucuracha, have been quiescent during the month.

There was no interference with Canal traffic.

The total excavation during the month was 512,800 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
20,950	5,050	15,900	Maintenance	Gaillard Cut East and West	*Cascadas.*
21,300	4,950	16,350	Maintenance	Gaillard Cut, Paraiso, P. I.	*Cascadas.*
11,600	.....	11,600	Maintenance	Gaillard Cut, East Culebra slide	*Cascadas.*
16,650	4,350	12,300	Maintenance	Gaillard Cut West	*Cascadas.*
25,950	8,000	17,950	Maintenance	Gaillard Cut West	*Gamboa.*
3,750	600	3,150	Maintenance	Gaillard Cut West Lirio slide	*Gamboa.*
1,600	400	1,200	Maintenance	Gaillard Cut East	*Gamboa.*
35,200	.....	35,200	Maintenance	Gaillard Cut, La Pita improvement project	*Gamboa.*
135,600	135,600	.....	Maintenance	Gaillard Cut East and West	*No. 86.*
229,400	229,400	.....	Maintenance	Pacific entrance	*Culebra.*
10,800	10,800	.....	Auxiliary	Balboa inner harbor	*Culebra.*
512,800	399,150	113,650			

VITAL STATISTICS.

A total of 153 deaths occurred during the month of September, 1923, among the population of the Canal Zone and the cities of Panama and Colon. This is equivalent to an annual death rate of 14.96 per thousand. The leading causes of death were: pneumonia, 26; tuberculosis, 22; organic diseases of the heart, 8; diarrhea and enteritis, 11; nephritis, acute and chronic, 19. Of the total deaths, 58, or 37.9 per cent, occurred among children under 5 years of age. There were 26 deaths of nonresidents and those living outside of the sanitated areas; these are not included in the above statistics.

There were 294 live births reported during the month, and 16 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 30.31 per thousand. Deaths among children under one year of age numbered 39, giving an infant mortality rate of 132.65 per thousand live births.

The total number of malaria cases reported during the month was 140. Of these 4 cases were reported from Panama City, 4 from Colon, 107 from the Canal Zone, and 25 originated outside of our sanitated area. Of the total 21 were employees, 49 nonemployees, and 70 were from the Army and Navy personnel. There was one death from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters is shown in the following tabulation in comparative form:

	As of September 30, 1923.			Comparative totals.		
	Men.	Women.	Children.	September, 1923.	September, 1922.	September, 1921.
Americans	2,164	1,701	1,686	5,551	5,658	7,056
Europeans	64	29	71	164	216	258
West Indians	4,102	2,687	6,155	12,944	12,630	12,998
Totals, September, 1923	6,330	4,417	7,912	18,659	.....	.....
Totals, September, 1922	6,362	4,412	7,730	.....	18,504	.....
Totals, September, 1921	7,962	4,668	7,682	.....	.....	20,312

WORKING FORCE.

The following tabulations show the number of gold and silver employees as of September 19, 1923, together with a comparison of the working force for the preceding month and that of September, 1922:

	As of September 19, 1923.			Total employees.	
	Gold.	Silver.	Total.	August, 1923.	September, 1922.
Operation and Maintenance:					
Office	28	33	61	61	62
Electrical	155	159	314	304	281
Municipal Engineering	69	420	489	477	595
Lock Operation	189	584	773	752	699
Dredging	148	868	1,016	1,018	909
Mechanical	384	763	1,147	1,068	904
Marine	166	489	655	723	528
Fortifications	13	70	83	93	157
Totals	1,152	3,386	4,538	4,496	4,135
Supply Department:					
Quartermaster	141	974	1,115	1,073	1,032
Subsistence	6	81	87	87	72
Commissary	164	776	940	942	922
Cattle Industry plant	5	175	180	210	134
Hotel Washington	8	85	93	89	91
Transportation	36	152	188	183	183
Totals	360	2,243	2,603	2,584	2,434
Accounting Department	188	8	196	197	195
Health Department	223	696	919	935	919
Executive Department	461	208	669	681	671
Totals	872	912	1,784	1,813	1,785
Panama Railroad:					
Superintendent	48	240	288	290	253
Transportation	66	104	170	180	165
Receiving and Forwarding Agent	74	918	992	752	735
Coaling stations	62	571	633	576	813
Totals	250	1,833	2,083	1,798	1,966
Grand totals, September, 1923	2,634	8,374	11,008	.....	.....
Grand totals, August, 1923	2,633	8,058	.....	10,691	.....
Grand totals, September, 1921	2,523	7,797	.....	.....	10,320

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month, as compared with the preceding month and the corresponding month a year ago, were as follows:

	September, 1923.	August, 1923.	September, 1922.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$302,009.43	$288,039.74	$113,883.21
For other Canal departments	8,952.97	5,886.69	3,169.32
Totals	310,962.40	293,926.43	117,052.53
Cash sales on Isthmus:			
Stock	16,955.84	19,403.99	28,180.42
Fuel oil	2,536.85	171.18	420.21
Scrap	911.05	1,917.26	834.42
Obsolete and second-hand material	2,376.65	392.37	54,360.27
Totals	22,780.39	21,884.80	83,795.32

Respectfully,

M. L. WALKER,

Acting Governor.

Whole Cargo of Chick Peas.

The motorship *Arantza Mendi*, operated by Sotar y Aznar, passed through the Canal on October 24, with a whole cargo of chick peas, 4,094 tons. They were shipped from Guaymas, Mexico, direct to Bilbao, Spain.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended October 29:

Steamship *Bidwell*, make and set cofferdam under bow, covering forepeak tank, starboard side; unwater cofferdam; make, fit and install hard patch over hole in forepeak and forward deep tank in wake of hole in forepeak tank, starboard side, and replace with bolts, etc.; yacht *Ohio*, dock, scale, and paint bottom hull and superstructure; repair propeller, fairwater, circulating pump for ice machine, radio, and gasoline tank vents; install fresh water filling line through deck; fit fan in galley smokestack in engine room; clean and cement wash water tanks; manufacture 4 drip pans; overhaul dual running light electrical circuit; renew zincs on hull and calk leaky rivets and seams; grind in sea cocks; manufacture one awning; clean, scrape, and paint chain locker; clean and paint bilges, etc.; steamships *Huallaga*, repair fresh water pump; install new wildcat on anchor windlass; repair sanitary line, etc.; *District of Columbia*, repair and clean bearings of L. P. and H. P. turbines; remetal and machine thrust shoes; manufacture thrust collar; redrive rivets on spring bearing pedestals; manufacture wrench for thrust collar nuts, etc.; *W. C. Gorgas*, manufacture pipe fittings and links; renew ash guard and cover plate over steam pipe on deck; repair starboard between deck in coal bunkers, bulkhead in engine room under general service pump, two copper bilge pipes in engine room, fire tools, and chisels, bulkheads in No. 1 and No. 2 between decks, socket for strongback No. 3 between deck hatch, bottle racks, waste pipe, and ice box; clean scupper in butcher's alleyway; repair angle iron and renew three floor plates in engine room, etc.; *Urubamba*, straighten dynamo eccentric rod; machine two pistons for ballast pump; repair suction pipe for forepeak tank and suction for after service tank; repair one head block; manufacture new hatch tarpaulin and canvas cover for engine room, etc.; *Algonquin*, furnish diver to examine rudder and pintles; manufacture and install new top pintle in rudder; *Newport*, repair winch and anchor windlass.

Minor repairs—Steamships *Balboa*, *Lagarto*, *La Navarre*, schooner *Arabia*, tugs *Tavernilla* and *Engineer;* steamships *Loriga*, *Santa Teresa*, *Agwistone*, *Ebro*, *Ceres*. *Huallaga*, launch *America*, U. S. launch *J–9*, U. S. D. B. *L–53*, and tug *Coco Solo*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending October 27, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded
				Tons.	*Tons.*
Atrato	Alfred Thorp	September 28	October 26		7
Talaralite[1]	Imperial Oil Co.	October 20	October 28		1
Acajutla	Pacific Steam Navigation Co.	October 21	October 22	103	
Nitro	U. S. Navy	October 22	October 25	166	
Lisbon Maru	Nippon Yusen Kaisha	October 24	October 25	1	
Newport	Pacific Mail Steamship Co.	October 24	October 24	59	

[1] Tanker.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective November 1, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.14
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.075
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.14
Waste, cotton, white	Lb.	14

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity 72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton 50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 27, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Essequibo	20	14 05	21	6 20	21	13.30	21	15.25	British	Pacific Steam Navigation Co.	460.0	67.6	24.6	New York	Valparaiso	General	2,644	9,099	6,117
Lio [1]	20	15.10	21	6.13	21	14.14	21	15.30	American	McAllister Bros. (S. B.)	431.0	59.2	20.10	Chester	San Pedro	Ballast		7,862	5,177
J. A. Moffett, Jr [1]	20	17.45	21	7.40	21	14.23	21	15.30	American	Standard Oil Co	499.2	68.1	20.8	New York	San Pedro	Ballast		11,037	7,995
Nitro [1]	18	17.12	21	8.05	21	15.03	26	15.53	American	U. S. Navy	459.8	60.11	21.0	Hampton R'ds	Honolulu	Navy supplies	1,260		
Georgian	20	21.05	21	8.36	21	15.45	21	17.13	American	American-Hawaiian Line	386.8	52.2	19.0	Philadelphia	San Pedro	General	4,538	5,719	4,023
Canadian Challenger	21	3.10	21	9.50	21	17.10	22	16.21	British	Canadian Government	400.0	52.0	21.6	Montreal	Auckland	General	5,000	6,142	4,354
Orleans	21	6.15	21	10.30	21	17.32	22	0.31	American	Oriental Navigation Co	395.5	55.0	27.0	Norfolk	Pearl Harbor	Coal	9,132	7,330	5,233
F. Q. Barstow [1]	21	7.10	21	10.48	21	18.08	21	19.26	American	Standard Oil Co	500.0	68.2	21.0	New York	San Pedro	Ballast		10,530	7,604
Dixie Arrow [1]	21	7.18	21	11.35	21	18.56	21	19.58	American	Standard Transportation Co	468.3	62.7	20.0	New York	Los Angeles	Ballast		9,744	7,140
Pomona	21	10.22	21	12.35	21	19.49	21	21.00	American	Weyerhaeuser Timber Co	440.0	56.0	17.0	New York	Los Angeles	General	2,700	8,300	6,026
Sciota [3]			21	9.00	21	10.42			American	U. S. Navy	155.0	30.0		Cristobal	Gatun Lake	Ballast			
Stuart Dollar	21	11.47	22	6.25	22	14.34	22	15.38	American	Dollar Line	429.0	55.2	22.0	New York	San Francisco	General	3,400	7,584	5,538
Port Denison	21	21.54	22	8.10	22	15.25	22	16.21	British	Commonwealth & Dom. Line	480.4	60.0	24.9	London	Dunedin	General	4,666	10,595	8,028
Agwisun [1]	22	6.10	22	8.45	22	16.29	22	17.25	American	Atlantic Gulf & W. I. S. S. Co	429.3	59.2	19.0	Baltimore	San Pedro	Ballast		7,612	5,402
Santa Barbara	21	7.22	22	11.48	22	19.15	22	20.20	American	Grace Line	404.6	53.9	22.6	Baltimore	San Francisco	General	4,670	6,789	4,746
Ruby [4]	20		22		22	10.07			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		1	1
No. 1418 [5]			22		22	10.07			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		1	1
Sciota [3]	21	15.15	22	7.35	22	16.27			American	U. S. Navy	155.0	30.0		Cristobal	Balboa	Towing barges			
Diomed	22	16.00	23	14.40	24	14.49	24	15.45	British	Alfred Holt & Co	482.0	62.10	29.6	New York	Japan	General	6,273	11,016	7,669
Garfield	21	16.57	23	15.20	24	15.38	24	16.55	American	Grace Line	299.4	45.0	18.6	New York	Pto. Chicama	General	1,854	3,256	2,010
William Rockefeller [1]	22	16.20	23	15.50	24	16.16	24	17.25	American	Standard Oil Co	554.9	75.3	19.0	New York	San Pedro	Ballast		14,785	10,313
Lorenzo	23	13.05	23	16.15	24	16:46	24	18.00	British	Ellerman & Bucknall Line	470.5	62.1	22.2	New York	Adelaide	General	5,374	8,571	6,087
John D. Archbold [1]	23	3.10	23	17.04	24	17.27	24	18.32	American	Standard Oil Co	554.9	75.3	23.6	Baltimore	San Pedro	Ballast		14,785	10,313
Erviken	23	7.13	23	17.05	25	10.05	25	11.30	Norwegian	Wallem & Co	420.0	54.0	26.6	Port Arthur	Darien	Case oil	8,000	6,979	5,131
Swiftwind [1]	23	7.40	23	17.55	25	12.39	25	13.50	American	Swiftsure Oil Transport Co	464.0	60.2	27.7	Tampico	Tocopilla	Crude oil	9,546	8,473	5,997
Tremeadow	22	17.57	23	19.50	25	11.28	25	12.35	British	Hain Steamship Co	400.0	52.0	22.6	Montreal	Sydney	General	4,600	5,797	4,090
City of Naples	23	8.12	23	20.00	25	13.30	25	14.35	British	Ellerman Lines, Ltd	418.3	53.3	25.0	Philadelphia	Sydney	General	3,750	6,689	4,982
Pruth	23	12.35	24	7.45	25	14.19	25	15.34	British	Mercantile Steamship Co	400.0	53.0	23.0	New York	Sydney	General, case oil	5,650	5,655	4,204
Panama Maru	24	8.12	24	9.15	25	15.19	25	16.34	Japanese	Osaka Shosen Kaisha	400.0	51.8	23.0	Buenos Aires	Kobe	General	3,389	6,099	4,289
Andrea F. Luckenbach	24	7.37	24	10.20	25	15.51	25	20.15	American	Luckenbach Line	496.0	68.2	19.6	New York	Los Angeles	General	5,157	11,487	8,762
S. B. Hunt [1]	24	12.17	24	12.40	26	9.29	26	10.26	American	Standard Oil Co	429.3	59.2	20.0	Baltimore	San Pedro	Ballast		7,652	5,522
Santa Teresa	24	12.00	25	10.11	25	17.10	25	20.33	American	Grace Line	360.2	51.6	23.3	New York	Talcahuano	General	1,860	5,726	4,086
Kroonland	25	7 22	25	10.22	25	18 35	26	1 58	American	International Mer. Marine	560.0	60.2	25.0	New York	San Francisco	General	1,267	13,514	9,127

[1] Tanker. [2] Transport. [3] Tug. [4] Launch. [5] Cayuca.

Cerro Azul [1]	24	12.45	25	12.32	25	19.36	25	20.54	American	Pan-American Petroleum Co.	480.5	66.0	18.6	New York	San Pedro	Ballast		9,398	6,453
Amasis	25	12.07	25	13.25	25	20.45	25	21.46	German	Kosmos Line	407.0	52.0	21.0	Hamburg	Corral	General	3,765	7,286	5,174
Curlew [6]			25	10.15	25				American	U. S. Navy				Cristobal	Gamboa	Ballast			
O–1 [7]			25	10.30	25	18.27			American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
Minnesotan	25	15.28	26	6.35	26	14.21	26	18.13	American	American-Hawaiian Line	407.0	53.7	19.6	Boston	Puget Sound	General	2,915	7,150	4,913
Kurdistan	25	20.45	26	6.50	26	15.16	26	19.50	British	Hindustan Steamship Co	380.0	53.0	15.6	Cardiff	Portland	Ballast			
Francis E. Powell [1]	26	3.55	26	7.55	26	16.29	26	17.30	American	Atlantic Refining Co	431.0	59.2	19.6	Chester	San Pedro	Ballast		7,860	5,101
Collegian	26	5.52	26	8.30	26	17.16	27	2.53	British	Harrison Line	455.4	56.0	18.0	New Orleans	San Francisco	Ballast		7,712	5,437
Calgarolite [1]	26	6.10	26	8.55	26	18.19	26	19.50	British	Imperial Oil Co	463.3	60.2	27.8	Tampico	Pisagua	Crude oil	10,400	7,712	6,091
Turakina	26	6.23	26	9.40	26	17.47	27	1.46	British	New Zealand Shipping Co	460.5	62.0	28.6	Liverpool	Auckland	General	8,880		
A. C. Bedford [1]	23	22.12	26	10.00	26	18.56	26	20.25	American	Standard Oil Co	500.0	68.0	14.6	Tampico	San Pedro	Ballast		10,896	7,688
Silverbirch	26	7.10	26	11.18	26	19.46	26	20.44	British	St. Helens Steamship Co	400.0	52.0	20.6	Montreal	Yokohama	General	4,190	5,732	3,952
Port Lyttleton	26	6.03	26	11.35	26	20.39	26	21.45	British	Commonwealth & Dom. Line	450.0	55.0	23.2	New York	Brisbane	General	3,213	8,124	5,715
Hamburg Maru	26	7.40	26	11.50	26	21.40	26	22.40	Japanese	Osaka Shosen Kaisha	400.0	54.0	23.6	New York	Hongkong	([11])	6,136	6,094	4,301
Huallaga	24	11.01	26	12.20	26	22.12	27	0.06	Peruvian	Peruvian Line	360.0	44.7	20.0	Cartagena	Callao	General, cattle	662	4,514	2,386
Steelore [1]	26	10.55	26	12.58	26	23.28	27	10.25	American	Ore Steamship Co	550.3	72.2	22.0	Baltimore	Cruz Grande	Ballast		15,551	4,297
O–2 [7]			26	7.40	26	16.21			American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
El Norte [8]	26	7.40	26	7.40	26	10.46			Panaman	J. Heurtado				Cristobal	Gatun Lake [10]			32	26
Arabia [8]	26	12.30	26	12.30	26	14.28			Panaman	San Blas Trading Co	103.6	24.0		Cristobal	Gatun Lake [10]			123	69
Jacques Cartier	26	11.20	27	6.30	27	13.32	27	14.48	French	French Line	472.1	59.7	23.0	Havre	Los Angeles	Tractors	2,800		
Mevania [1]	26	17.23	27	6.30	27	14.17	27	15.20	American	Malston Line	425.8	57.0	18.0	New York	San Pedro	Ballast		7,485	5,216
Tydeus	26	18.45	27	7.35	27	15 18	27	20.25	British	Alfred Holt & Co	454.8	54.1	19.0	Liverpool	San Francisco	General	3,656	7,595	5,534
Maine	27	1.30	27	7.45	27	15.52	27	23.20	American	Frank V. Barns	402.0	54.2	27.0	Baltimore	Seattle	General	8,380	6,936	4,998
San Dunstano [1]	27	2.10	27	8.35	27	16.18	27	21.40	British	Eagle Oil Transport Co	420.2	54.0	18.0	Antwerp	San Francisco	Ballast			
Durango [1]	27	4.25	27	8.40	27	17.09	27	18.17	American	Malston Line	435.0	56.0	22.0	New York	San Pedro	Ballast		7,642	5,274
Beaconlight [1]	27	8.13	27	9.34	27	18.01	27	19.40	American	Beacon Oil Co	435.0	56.0	17.0	Boston	San Pedro	Ballast		7,481	5,119
Steel Inventor	27	8.22	27	9.50	27	18.17	27	19.40	American	U. S. Steel Products Co	424.2	56.2	25.6	Philadelphia	Manila	General, steel	8,050	7,611	5,450
Loriga [9]	26	12.30	27	10.55	27	19.09	27	20.02	British	Pacific Steam Navigation Co	406.0	54.2	16.6	London	Valparaiso	Ballast			
Sutermco	27	13.10	27	13.23	27	20.20	27	21.40	American	Transmarine Corporation	324.0	46.0	20.0	New York	Los Angeles	General	3,700	3,984	2,612

[1] Tanker. [6] Tug. [7] Submarine. [8] Motor schooner. [9] Motor ship. [10] For bananas. [11] Petroleum, rails and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

J. L. Luckenbach	20	18 10	21	6.16	21	15.15	21	15.15	American	Luckenbach Line	448.9	60.2	27 0	Portland	New York	General	8,000	9,294	6,861
Argon [1]	20	23.00	21	8.01	21	16 25	21	16.25	American	Standard Transportation Co	435.6	56.2	27.9	San Pedro	Providence	Crude oil	9,515	7,386	5,183
K. R. Kingsbury [1]	20	23.00	21	8.39	21	16.50	21	16.50	American	Standard Transportation Co	435.6	56.2	27.9	Los Angeles	New York	Crude oil	11,000	9,033	5,938
Hugoton [1]	18	19.58	21	9.22	21	17.35	21	17.35	American	C. D. Mallory & Co	434.8	56.2	27.6	San Pedro	Baton Rouge	Crude oil	10,528	7,429	5,175
Franklin K. Lane [1]	22	4.00	22	7.49	22	14.55	23	5.00	American	Pan-American Pet. & Trans. Co.	435.0	56.2	27.0	San Pedro	New Orleans	Crude oil	9,070	7,405	5,131
Eurana	22	4 49	22	8.14	22	17.15	22	23.15	American	Planet Steamship Corporation	399.7	56.2	24.6	Seattle	New York	Lumber	6,600	7,381	5,597
Acajutla	21	13.30	22	9.30	22	17.00	29	6.10	British	Pacific Steam Navigation Co	216.0	33.4	13.2	Champerico	Cristobal	General	109	1,273	706
Artigas	22	10.00	22	11.40	22	20.13	22	20.13	American	N. Atl. & Western Co. (S.B.)	390.0	54.2	22.0	San Francisco	Philadelphia	Lumber, general	4,811	6,204	4,314
S. M. Spalding [1]	22	9.00	23	15.08	24	13 24	24	17.05	American	Pan-American Pet. & Transp. Co.	435.0	56.0	26.10	San Pedro	New Orleans	Crude oil	9,542	7,331	5,111
Centurion	22	19.00	23	15.36	24	14.20	24	16.00	British	Harrison Line	400.0	52.0	24.0	Vancouver	Liverpool	General	6,700	5,738	4,161
Hazel Branch	22	20.00	23	15.48	24	12.05	24	14 20	British	F. & W. Ritson	400.4	51.2	23.0	Valparaiso	Liverpool	General	6,232	5,208	3,578
Rancha [1]	22	16 00	23	16 00	24	12 36	24	12 36	British	Anglo-Saxon Petroleum Co	405.7	51.3	26.0	San Francisco	Land's End [12]	Benzine	6,902	5,923	4,089

[1] Tanker. [12] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Steel Seafarer	23	5.00	23	16.17	24	13.55	24	13.55	American	Isthmian Lines	424.2	56.2	24.6	Seattle	Boston	([15])	7,065	7,611	5,454
Deroche [1]	23	7.05	23	16.29	24	15.00	24	15.00	American	Union Oil Co. of California	435.0	56.0	29.6	Los Angeles	Baltimore	Crude oil	10,000	7,452	5,199
Ormidale	23	6.25	23	17.09	24	15.50	24	15.50	American	C. D. Mallory & Co	250.5	43.5	19.0	San Pedro	New Orleans	General	1,940	2,373	1,612
Favell [13]	22	12.10	24	6.45	24	17.35	27	8.40	Finnish	Finnish Schoolship Co	237.5	36.2	20.10	Asia Island	English Chan'l	Guano	1,200	1,336	1,158
O-7 [14]			24	6.52	24	15.00			American	U. S. Navy	175.0	16.4		Balboa	Coco Solo				
Margaret Coughlan	23	15.00	24	7.14	24	16.20	24	18.30	British	Ocean Carriers Co., N. Y	411.5	54.0	23.6	Victoria, B. C.	Montreal	Lumber, salmon	6,918	6,624	4,999
Agwistone [1]	22	20.27	24	7.55	26	11.55	27	15.30	American	Ward Line	499.9	68.1	28.9	San Pedro	New York	Crude oil	14,065	10,600	7,526
Ilford	23	18.00	24	8.22	24	18.15	24	22.30	British	Watts, Watts & Co	360.0	48.0	24.5	Antofagasta	Norfolk	Nitrates	6,452	4,636	3,262
Orient	24	1.30	24	8.41	24	17.40	24	17.40	American	Oriental Navigation Co	376.4	52.3	19.6	Vancouver	New York	([16])	4,500	5,455	3,879
Delaware Sun [1]	24	3.30	24	9.01	25	15.45	25	16.55	American	Sun Oil Co	480.5	66.0	28.6	San Pedro	Chester	Crude oil	13,183	9,402	6,585
Ingram	24	5.30	24	9.33	25	16.55	25	16.55	German	Roland Line	369.6	50.8	22.3	Portland	Hamburg	General	5,348	4,899	3,704
Manavi	24	6.35	24	10.29	25	14.55			British	Pacific Steam Navigation Co	216.0	35.1	15.0	Guayaquil	Cristobal	General	858	1,357	884
Lisbon Maru	24	8.15	24	10.45	25	17.20	25	17.20	Japanese	Nippon Yusen Kaisha	445.0	58.0	18.2	Hongkong	Boston	General	3,030	8,015	5,849
Urubamba	24	10.55	24	12.45	25	14.55	29	8.30	Peruvian	Peruvian Line	381.2	41.1	20.8	Callao	Cristobal	General	3,250	4,803	2,951
Arantza Mendi	24	1.00	25	9.43	25	18.24	25	18.24	Spanish	Sota y Aznar	348.0	48.0	19.4	Guaymas	Bilbao	Chick peas	4,094	4,934	3,451
Algonquin [1]	24	13.20	25	10.30	25	20.07	27	10.05	American	Standard Transportation Co	435.0	56.0	26.6	San Pedro	Providence	Crude oil	9,386	7,602	5,337
Newport	24	12.00	25	11.49	25	19.20			American	Pacific Mail Steamship Co	326.0	38.2	13.6	San Francisco	Cristobal	General	68	3,173	2,163
Floridian	24	12.45	25	12.44	25	20.16	25	20.16	American	American-Hawaiian Line	416.2	53.6	25.2	Seattle	New York	General	7,762	7,273	5,105
Lochkatrine	24	22.00	25	13.00	25	21.24	26	20.09	British	Royal Mail Steam Packet Co	485.4	62.3	28.6	Seattle	Antwerp	General	8,933	10,802	7,595
Aladdin [1]	25	8.35	25	13.57	25	22.55	25	22.55	American	Standard Transportation Co	435.6	56.2	26.0	San Pedro	New York	Crude oil (bulk)	9,552	7,408	5,112
Ebro	25	21.45	26	6.39	26	18.05	27	7.50	British	Pacific Steam Navigation Co	450.3	57.9	25.7	Valparaiso	New York	Nitrate, general	4,439	9,151	6,227
William A. Doheny [1]	25	10.55	26	7.29	26	17.58	26	17.58	American	Pan-American Pet. & Transp. Co.	435.0	56.2	26.6	San Pedro	New Orleans	Crude oil	10,038	7,406	5,111
Ceres	25	12.05	26	8.36	26	19.05	27	13.27	Dutch	Royal Netherlands W I. Mail	348.0	48.2	20.0	Valparaiso	Havre	([17])	3,786	4,243	3,123
W. C. Teagle [1]	25	13.20	26	9.16	26	19.19	26	19.19	American	Standard Oil Co. of N. J.	499.1	68.2	29.5	Los Angeles	New York	Crude oil	15,000	10,991	7,986
Robert E. Hopkins [1]	25	13.20	26	10.02	26	20.10	26	20.10	American	Tidewater Oil Co	424.4	58.2	26.0	Los Angeles	New York	Crude oil	9,953	7,333	5,244
Haimon	25	17.50	26	10.16	26	20.30	26	21.50	German	Roland Line	369.0	46.0	23.0	Cerro Azul	New York	([18])	3,565	4,350	3,117
Henry D. Whiton	25	19.30	26	10.40	26	21.45	26	21.45	American	Union Sulphur Co	356.0	51.6	17.0	San Pedro	Sabine	Ballast		5,367	2,925
Apurimac	26	6.45	26	11.49	26	23.40	27	14.00	Peruvian	Peruvian Line	382.0	48.2	25.0	Callao	New York	Sugar, cotton,	5,289	4,867	3,544
Mobile City	25	23.30	26	12.17	27	0.15	27	0.15	American	Isthmian Steamship Lines	395.5	55.0	27.6	Caleta Colosa	Savannah	Nitrate	8,833	7,330	5,241
Leon XIII	26	13.45	27	6.30	27	14.40	28	12.35	Spanish	Cia. Trasatlantica	412.7	43.1	20 4	Valparaiso	Barcelona	General	520	5,521	3,729
General O. H. Ernst	27	1.30	27	7.23	27	15.20			American	Panama Railroad Steamship Line	356.4	45.3	18.0	Guayaquil	New York	General	1,301	4,503	2,764
Neponset	27	4.40	27	8.31	27	16.20	27	16.20	American	U. S. Shipping Board	434.3	57.7	20.10	San Francisco	New York	General	4,064	7,893	5,621
Margaret Dollar	26	23.00	27	12.10	27	20.17	27	20.17	American	Dollar Line	429.0	55.2	25.6	Vancouver	New York	General, lumber	5,750	7,579	5,527
Hoxbar [1]	27	6.45	27	13.05	27	22.15	28	8.15	American	McAllister Bros. (S. B.)	434.8	56.2	27.0	San Pedro	New York	Crude oil	10,000	7,421	51,74

[1] Tanker. [13] Sailboat. [14] Submarine. [15] Lumber, canned goods, general. [16] Lumber, shingles, canned goods. [17] Nitrate, borax, coffee, cacao. [18] Cotton, sugar, and dry hides.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 196, column 2.)

Notaries Public in the Canal Zone.

The following is a list of the Notaries Public commissioned in the Canal Zone as of October 29, 1923. The list gives the name, where stationed, and the date of expiration of commission:

BALBOA.

Adams, R. H., Balboa shops, August 18, 1925.
Dryden, Geo. A., Balboa storehouse, October 10, 1926.
Hyde, W. H., Port Captain's office, March 28, 1926.
Kalar, J. D., Port Captain's office, April 13, 1926.
Smith, Walter R., Balboa storehouse, September 4, 1925.
Lefever, John E., Port Captain's office, February 28, 1925.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 272, October 28, 1924.
Boggs, W. B., Administration Building, room 262, August 4, 1925.
Buehler, Geo. H., Administration Building, room 201, April 19, 1924.
Illwitzer, P. G., Administration Building, room 270, October 12, 1926.
McNamara, J. W., Administration Building, room 301, October 3, 1925.
Murray, P. E., Administration Building, room 112, October 13, 1926.
Sims, Walter H., Quarry Heights, December 1, 1924.
Taylor, R. G., Administration Building, room 343, April 19, 1924.
Wang, Frank H., Administration Building, room 303, April 29, 1926.
Walker, J. J., Administration Building, room 237, July 27, 1924.

ANCON.

Boyd, Oscar S., Municipal Division, July 30, 1926.
Sheibley, F. H., District Court, October 27, 1926.
Williams, H. E., Tivoli Annex, January 10, 1924.

COROZAL.

Grimm, G. L., Corozal hospital, June 28, 1926.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1926.

PEDRO MIGUEL.

Cauthers, R. A., Municipal Division, October 19, 1926.
Norris, R. N., Municipal Division, June 30, 1924.
Shaeffer, L. E., Locks, April 6, 1926.

GATUN.

Daniels, W. L., Marine Division, March 25, 1924.
Ford, Stanley R., asst. district quartermaster, August 19, 1926.
Scarborough, W. W., clubhouse, December 21, 1923.
Malone, P. L., Station Agent, April 12, 1924.

MOUNT HOPE.

Jones, Norman C., Cold storage plant, November 30, 1925.

CRISTOBAL.

Campbell, J. S., District Court, January 28, 1926.
Earle, L. H., American Foreign Banking Corporation, January 9, 1924.
Flood, Arthur, Customs office, November 15, 1925.
Crawford, John J., Port Captain's office, September 26, 1925.
Thornton, H. O., local freight house, December 6, 1925.
Livengood, J. F., Commissary Division, May 17, 1925.
MacSparren, E. S., Receiving and Forwarding Agency, December 1, 1924.
Mitchell, J. A., customs office, March 31, 1925.
Page, Courtenay K., American Foreign Banking Corporation, August 24, 1924.
Rabbitt, D. F., Commissary Division, October 11, 1926.
Cotton, Charles, coaling plant, March 20, 1926.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "B:"	
Ward 5, Male, private rooms, and American boys' ward	Daily 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, and American girls' ward	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.30 to 4.30 p. m.
Ward 17, Colored, children	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White, children	Daily 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.
Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 194.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
October 21..	Calamares	United Fruit Co	Port Limon.
October 21..	Zacapa	United Fruit Co	New Orleans via Habana.
October 21..	La Navarre	French Line	St. Nazaire via wayports.
October 23..	Pastores	United Fruit Co	New York via Habana.
October 24..	Saramacca	United Fruit Co	New Orleans via Habana.
October 24..	Sixaola	United Fruit Co	New York via Kingston.
October 24..	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	New York via Haiti.
October 25..	Coronado	Elders & Fyffes, Ltd	Port Limon.
October 25..	Speaker	Harrison Line	Liverpool via wayports.
October 15..	Zacapa	United Fruit Co	Port Limon and Bocas del Toro.
October 27..	Adalia	Hamburg-American Line	Puerto Barrios.

*DEPARTURES.

Date.	Vessel.	Line.	For—
October 21..	Calamares	United Fruit Co	New York via Habana.
October 21..	Zacapa	United Fruit Co	Bocas del Toro and Port Limon.
October 24..	La Navarre	French Line	St. Nazaire via wayports.
October 24..	Pastores	United Fruit Co	Port Limon.
October 25..	Sixaola	United Fruit Co	Colombian ports.
October 25..	Saramacca	United Fruit Co	New Orleans via wayports.
October 25..	Zacapa	United Fruit Co	New Orleans.
October 25..	Coronado	Elders & Fyffes, Ltd	Bristol via Santa Marta.
October 26..	Speaker	Harrison Line	Cape Henry.

PORT OF BALBOA.

None				October 27..	Talaralite	Imperial Oil Co	Talara.

*Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., November 7, 1923. No. 13.

Traffic in October, 1923.

The number of commercial transits through the Panama Canal during the month of October, 1923, was 427. In addition to commercial transits there were 20 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 23 transits of government vessels on which no tolls were paid, making the total transits for the month 470. The daily average of the commercial transits was 13.77, the same as in the preceding month, September.

Tolls for the month aggregated $1,988,607.69 on the 427 commercial vessels and $88.80 on the 20 launches, making a total of $1,988,696.49, or a daily average of $64,151.50. The daily average of collections on the commercial traffic was $64,148.63.

Detail of the month's traffic, segregated by direction, is as follows:

	TRANSITS.				TOLLS.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches.	Total.
Atlantic to Pacific	229	20	16	265	$1,023,749.27	$88.80	$1,023,838.07
Pacific to Atlantic	198	.....	7	205	964,858.42	.....	964,858.42
Totals	427	20	23	470	1,988,607.69	88.80	1,988,696.49

The following tabulation shows the monthly totals, and the daily averages of transits and tolls during the current calendar year, for commercial vessels only:

	Aggregate Monthly.		Daily Average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
January	352	$1,505,285.55	11.35	$48,557.60
February	326	1,423,954.21	11.64	50,855.51
March	409	1,827,718.44	13.20	58,958.66
April	404	1,878,938.15	13.47	62,631.27
May	419	1,972,216.04	13.52	63,619.87
June	417	[1]1,898,259.08	13.90	63,275.30
July	474	2,124,830.02	15.29	68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63

[1] Previous figures for June are increased by $215.28, collected in October under supplemental bill against steamship *Acme*, transiting on June 25, 1923.

The average amount of tolls paid by each commercial vessel transiting the Canal during the month of October, 1923, was $4,657.16.

Bananas from Gatun Lake Region.

During the month of October, 16 small craft ranging from launches of one ton or less measurement to a motor schooner of 69 tons transited Gatun Locks, engaged in carrying bananas from the Gatun Lake region to Cristobal. The aggregate tonnage of these 16 vessels was 147 net tons, Panama Canal measurement. The motor schooner carried 2,500 bunches of bananas.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 3, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Arawa	27	9.32	28	6.20	28	19.18	28	20.26	British	Shaw, Savill & Albion Co.	460.0	60.5	29.0	London	Wellington	General	6,000	10,035	7,504
Bethore [1]	27	14.40	28	11.37	28	20.10	29	1.26	American	Ore Steamship Co	550.5	72.2	23.0	New York	Cruz Grande	Ballast		15,476	4,354
Lehigh	27	4.13	28	12.05	28	21.03	28	22.00	American	N. Atl. & Western Co. (S. B.)	390.0	54.2	18.0	Boston	Seattle	General	2,000	6,142	4,276
Etna Maru	27	17.32	28	13.02	28	21.50	28	23.02	Japanese	Kabushiki Kaisha Kawasaki	415.0	55.0	26.0	Galveston	Kobe	General	6,945	7,216	5,339
Santa Clara	27	19.58	28	13.14	28	22.35	28	23.28	American	Atlantic & Pacific S. S. Co	404.0	53.9	18.0	Baltimore	San Francisco	General	2,790	6,760	4,450
Byron D. Benson [1]	28	0.40	28	14.05	29	18.43	29	19.45	American	Tidewater Oil Co	465.4	60.2	20.0	New York	San Pedro	Ballast		8,546	6,095
O–3 [2]			28	6.45	29	14.00	29	17.53	American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
O–6 [2]			28	6.45	29	14.00	29	17.53	American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
O–8 [2]			28	6.45	29	14.00	29	17.53	American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
Curlew [3]			28	10.30	28	21.40			American	U. S. Navy				Cristobal	Gamboa, ret	Ballast			
Solen [1]	28	13.35	29	6.35	29	18.50	29	19.45	British	Anglo-Saxon Petroleum Co	411.5	53.4	18.6	Bristol	San Francisco	Ballast		6,129	4,281
Acajutla	22	17.00	29	6.10	29	19.50	29	21.06	British	Pacific Steam Navigation Co	215.7	33.5	16.1	Cristobal	Champerico	General	1,109	1,273	706
Toco [1]	28	17.30	29	7.11	29	19.54	3	0.45	British	Sheridan Steamship Co	440.8	56.0	25.6	Tampico	Tocopilla	Crude oil	9,760	7,693	4,831
William Perkins	28	17.45	29	7.20	29	20.28	29	21.28	American	Garland Steamship Line	409.8	54.2	17.0	New York	Seattle	General	1,035	6,757	4,919
F. H. Hillman [1]	28	20.15	29	8.48	29	20.39	30	1.33	American	Standard Oil Co	500.0	67.5	22.0	London	San Francisco	Ballast		11,225	7,913
John D. Rockefeller [1]	29	4.20	29	9.00	29	21.26	29	22.16	American	Standard Oil Co	458.3	60.0	20.0	New York	Los Angeles	Ballast		8,633	6,314
Aspinet [1]	28	20.35	29	10.00	29	21.44	29	23.34	British	Standard Transportation Co	390.0	52.0	21.10	New York	Yokohama	General, case oil	5,408	5,301	3,866
Ethan Allen	29	7.13	29	10.10	29	22.16	29	23.34	American	Tampa Interocean Co. (S. B.)	439.0	60.0	24.6	New Orleans	Kobe	General	7,162	8,987	6,534
M. F. Elliott [1]	29	9.52	29	11.05	29	22.26	29	23.34	American	Standard Oil Co	425.0	57.2	19.0	Good Hope	San Pedro	Ballast		7,481	4,946
Cederic	29	10.13	29	11.18	29	23.24	30	0.45	Norwegian	Det. Selmerske Rederi	338.0	48.0	24.0	Baltimore	San Antonio	Coke	3,910	4,113	3,071
Delecto	29	9.26	29	12.20	30	17.13	30	22.50	American	Williams Line	314.0	48.0	19.6	New York	Los Angeles	General	4,004	4,419	3,230
R–23 [2]			29	6.28	29	14.00	29	17.53	American	U. S. Navy	175.0	16.7		Cristobal	Balboa	Ballast			
R–26 [2]			29	6.28	29	14.00	29	17.53	American	U. S. Navy	175.0	16.7		Cristobal	Balboa	Ballast			
R–27 [2]			29	6.28	29	14.00	29	17.53	American	U. S. Navy	175.0	16.7		Cristobal	Balboa	Ballast			
Mary J. [4]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		1	1
Ruby [4]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		1	1
No. 4892 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		2½	2½
No. 2849 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		2½	2½
No. 930 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		10	10
No. 2259 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		9	9
No. 2207 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		8	8
No. 2243 [5]			29		39	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		11	11
No. 2850 [5]			29		29	8.50			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		4	4
Newport	25	19.20	30	6.15	30	17.06	30	18.10	American	Pacific Mail Steamship Line	326.0	38.0	20.3	Cristobal	San Francisco	General	2,119	3,173	2,163
W. M. Irish [1]	29	19.52	30	6.25	30	17.41	30	18.46	American	Atlantic Refining Co	435.0	56.0	19.0	Philadelphia	San Pedro	Ballast		7,392	5,453
Stanley	29	14.08	30	7.15	30	18.12	30	19.05	American	Barber Line (S. B.)	401.7	54.8	25.10	New York	Manila	General	7,591	6,933	5,187

[1] Tanker. [2] Submarine. [3] Tug. [4] Launch. [5] Barge.

Matinicock [1]	29	14.50	30	8.25	30	18.36	31	1.07	American	Standard Oil Co	459.1	60.0	21.6	New York	San Pedro	Ballast		8,171	6,014
Halo [1]	29	19.30	30	10.15	30	18.54	30	20.00	American	Cities Service Co	435.0	56.0	19.0	Boston	San Pedro	Ballast		7,434	5,066
Hindustan	30	6.35	30	10.35	30	19.18	30	20.19	British	Hindustan Steamship Co	399.0	52.0	17.0	Las Palmas	Vancouver	Ballast		5,826	4,154
William G. Warden [1]	30	16.55	31	6.17	31	17.51	31	18.51	American	Standard Oil Co	500.0	68.2	17.4	New York	Los Angeles	Ballast		10,524	7,600
Montrolite [1]	30	22.15	31	7.22	31	18.38	31	20.00	British	Imperial Oil Co	421.0	57.0	27.6	Tampico	Pisagua	Crude petroleum	8,784	7,378	4,752
Harold Walker [1]	31	11.05	31	11.17	31	18.53	31	20.00	American	Pan-American Petroleum Co	430.0	58.0	21.0	New York	Los Angeles	Ballast		6,973	4,658
Cissy	30	23.50	31	11.12	31	19.34	31	20.40	Norwegian	New Orleans & S. A. S. S. Co	289.5	44.0	17.8	New Orleans	Talcahuano	General	1,500	2,976	2,119
Dinteldijk [6]	30	14.15	31	12.40	31	19.49	31	20.40	Dutch	Holland-American Line	485.0	62.0	23.10	Rotterdam	San Francisco	General	6,030	10,786	7,551
Lautaro [6]	29	14.20	1	6.14	1	16.40	1	17.37	British	Pacific Steam Navigation Co	399.0	52.0	19.6	Glasgow	Corral	(8)	12,916	6,759	4,849
Losada [6]	31	13.06	1	6.20	1	17.01	1	18.01	British	Pacific Steam Navigation Co	406.1	54.2	17.8	Antwerp	Valparaiso	General	1,263	7,221	4,844
Hampton R'ds [1]	31	17.40	1	7.35	1	17.27	1	18.37	American	McAllister Brothers (S. B.)	431.0	59.2	18.0	Fall River	San Pedro	Ballast		8,093	5,541
Augvald	31	20.00	1	7.50	1	17.57	1	19.16	Norwegian	H. M. Wrangle & Co	400.0	52.6	16 0	Cardiff	San Pedro	Ballast		6,698	4,990
Chattanooga City	31	21.45	1	8.23	1	18.18	1	19.20	American	U. S. Steel Products Co	424.2	56.2	26.0	Baltimore	Seattle	General	8,339	7,611	5,450
Osiris [6]	1	0.01	1	8.36	1	18.42	1	19.40	German	Kosmos Line	375.0	51.9	21.6	Hamburg	San Francisco	General	5,000	5,788	4,023
Balto	31	17.45	1	9.26	1	19.09	1	20.23	Norwegian	B. Stolt Nielsen & Co	445.5	57.7	10.0	Newport News	Astoria	Ballast			
Dorothy Luckenbach	31	23.55	1	10.11	1	19.36	1	20.36	American	Luckenbach Line	449.0	60.0	24.8	New York	San Pedro	General	6,265	9,294	6,861
Teno	1	7.03	2	6.05	2	19.04	2	20.00	Chilean	Chilean Line	421.8	56.0	24.3	New York	Valparaiso	General	1,702	7,758	4,672
Pennsylvanian	1	14.00	2	6.15	2	19.56	2	23.51	American	American-Hawaiian Line	407.7	53.7	19.0	Boston	Puget Sound	General	3,136	7,107	4,916
W. W. Mills [1]	1	21.25	2	7.15	2	18.37	2	19.49	American	Pure Oil Co	424.4	58.2	20.0	Marcus Hook	San Pedro	Ballast		7,333	5,119
D. G. Seofield [1]	2	3.40	2	7.30	2	19.30	2	20.38	American	Standard Oil Co	439.5	58.0	19.6	New York	San Pedro	Ballast		8,698	6,040
Mount Clinton	2	0.40	2	8.45	2	20.20	3	3.40	American	Shawmut Steamship Co	440.3	57.2	19.6	Baltimore	Seattle	General	3,367		
Nebraska	2	6.09	2	8.50	2	20.48	3	7.55	British	Royal Mail Steam Packet Co	450.0	58.0	16.0	Hull	San Francisco	Ballast		8,878	6,588
H. M. Storey [1]	2	6.35	2	9.47	2	21.23	2	22.46	American	Standard Oil Co	500.0	68.2	20.0	New York	Los Angeles	Ballast		11,224	7,849
Hallgyn	2	6.58	2	10.10	2	21.24	3	10.13	Norwegian	A. S. Rederi Odejell	420.0	54.0	15.0	Rotterdam	San Francisco	Ballast		7,075	5,301
Ansgir	2	8.57	2	11.05	2	21.54	2	23.20	German	Roland Line	393.0	54.1	17.10	Hamburg	Guayaquil	General	1,922	6,542	4,532
Venezuela	2	3.25	2	12.00	2	22.13	3	14.10	American	Pacific Mail Steamship Co	380.0	48.6	21.6	New York	San Francisco	General	2,650	6,033	4,353
Curlew [7]			2	6.45	2	23.22			American	U. S. Navy				Cristobal	Gamboa, ret	Ballast			
Otavi	2	8.45	3	6.05	3	17.30	3	18.37	German	Hamburg-American Line	394.11	47.6	23.0	Hamburg	Puntarenas	General	2,471		
Frederic R. Kellogg [1]	2	14.00	3	6.20	3	18.15	3	19.28	American	Pan-American Petroleum Co	425.8	57.0	22.9	Boston	San Pedro	Ballast		7,178	4,963
Chester Sun [1]	2	16.09	3	7.32	3	17.23	3	18.37	American	Sun Oil Co	429.3	52.2	18.0	Philadelphia	San Pedro	Ballast		7,684	5,411
Susherico	3	0.20	3	7.35	3	18.25	3	19.45	American	Submarine Boat Corporation	324.0	46.2	24.0	Newark	San Pedro	General	4,500	3,984	2,612
Steel Scientist	3	6.28	3	9.30	3	19.18	4	0.25	American	U. S. Steel Products Co	424.2	56.2	26.0	New York	Vancouver	Steel, general	8,175	7,611	5,454
Datchet	3	5.55	3	9.40	3	19.37	3	21.05	British	Watts, Watts & Co	323.0	47.0	20.6	Norfolk	Valparaiso	Coal	3,818	3,418	2,442
Agwihavre [1]	3	12.25	3	12.48	3	19.57	3	21.22	American	Atlantic Gulf & W. I. S. S. Co	480.5	66.0	22.0	New York	Los Angeles	Ballast		9,394	6,305

[1] Tanker. [6] Motor ship. [7] Tug. [8] Coal, coke, and general

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Canadian Cruiser	27	12.45	28	6 27	28	17.49	28	17.49	British	Canadian Govt. Mer. Marine	430.0	59.0	16.6	Auckland	New York	General	301	7,680	5,494
Izgled	27	20.40	28	11.26	28	20.10	28	21.40	Jugo-Slavic	Ivo Racic	378.0	53.5	24.0	Antofagasta	Gibraltar	Nitrate	7,352	5,236	3,987
Largato [10]	27	8.45	28	12.04	28	21.25	29	23.10	British	Pacific Steam Navigation Co	385.1	52.2	26.6	Punta Arenas	Havre, etc	Nitrate, general	6,572	5,656	3,823
H. M. Flagler [1]	28	9.25	28	12.32	28	22.55	29	2.00	American	Standard Oil Co. of N. J.	461.6	60.0	27.6	Los Angeles	Baton Rouge	Crude oil	11,858	8,450	6,089

[1] Tanker. [10] Motor ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Commercial Pathfinder	28	14.40	29	6.51	29	21.10	29	21.15	American	Moore & McCormick Co.	395.1	49.4	28.0	Los Angeles	New York	[12]	6,168	5,220	3,734
Culebra			29	6.58	29	19.35	30	10.55	American	The Panama Canal	288.0	47.6	14.0	Balboa	Cristobal				
Gulfstate [1]	28	18.45	29	7.19	29	18.40	29	18.40	American	Gulf Refining Co	435.0	56.0	29.6	San Pedro	New York	Crude oil	9,716	7,643	5,324
Walter A. Luckenbach	28	21 17	29	8.42	29	20.30	29	20.30	American	Luckenbach Line	446.5	56.1	27.0	Portland	Boston	General	6,500	8,785	6,567
E. T. Bedford [1]	29	1.12	29	9.15	29	20.00	29	20.00	American	Standard Oil Co. of N. J.	499.2	68.1	30.6	San Pedro	Baton Rouge	Crude petroleum	15,370	11,009	7,967
Sunugentco	29	3.00	29	9.51	29	21.55	30	19.53	American	Submarine Boat Corporation	324.0	46.0	22.6	Aberdeen	New York	[13]	4,500	3,984	2,612
Norlina	29	5.45	29	10.21	29	23.32	29	23.32	American	Garland Steamship Corporation	385.0	51.1	22.6	Aberdeen	New York	Lumber	6,000	5,466	4,181
Pennsylvania Sun	29	6.35	29	10.39	29	10.26	29	22.26	American	Sun Oil Co	480.5	66.0	28.0	San Pedro	New York	Crude oil	13,233	9,325	6,383
Santa Elisa	29	7.20	29	11.12	29	22.15	29	23.54	American	Grace Line	360.3	51.7	24.6	Talcahuano	New York	General	6,154	5,957	4,325
Mystic	28	22.30	29	12.12	30	0.35	30	0.35	American	American-Hawaiian Line	400.7	54.2	26.6	Portland, Oreg	Providence	Lumber	6,680	6,623	4,625
Arabian Prince	29	16 25	30	6.31	30	19.20	30	20.15	British	Prince Line, Ltd	405.0	52.3	25.6	Vancouver	Newcastle	General	7,400	6,304	4,531
Riberton	29	22.00	30	7.50	30	20.05	30	20.05	British	R. Chapman & Sons	325.0	46.0	24.6	Portland, Oreg	Colon [13]	Wheat	4,719	3,464	2,473
Willsolo	30	6.00	30	8.30	30	19.21	30	19.21	American	Williams & Co	434.3	57.7	23.6	Seattle	Philadelphia	General	7,000	7,983	5,882
Japan Arrow [1]	30	10.45	30	11.27	20	20.37	30	20.37	American	Standard Transportation Co	468.3	62.7	28.0	San Pedro	New York	Crude oil	12,100	10,084	7,426
Sunbeam [1]	30	13.00	31	6.39	31	19.00	31	19.00	American	Sun Oil Co	429.3	59.2	28.0	San Pedro	New York	Crude oil	11,000	7,709	5,481
Thomas H. Wheeler [1]	30	18.30	31	7.30	31	19.30	31	19.30	American	Standard Oil Co. of N. J.	425.0	57.2	27.0	San Pedro	New York	Crude oil	9,755	7,481	4,769
Baja California	30	20.00	31	7.39	31	18.40	31	22.40	Norwegian	Guaymel Fruit Co	265.6	38.5	16.0	Victoria, B. C.	New York	Lumber	1,700	1,955	1,152
Benlawers	30	21.00	31	8.04	31	20.20	31	23.35	British	Wm. Thompson Co	378.0	46.1	21.0	Suva	Rotterdam	Copra	3,728	4,246	3,068
Agwipond [1]	30	21.00	31	9.15	31	20.40	31	20.44	American	Ward Line	468.3	62.7	29.0	San Pedro	Baltimore	Crude oil	12,000	9,810	6,965
Imlay [1]	31	3.00	31	9.39	31	21.25	31	21.25	American	C. D. Mallory Co., Inc	425.8	57.0	28.0	San Pedro	Baton Rouge	Crude oil	10,400	7,218	4,959
Tuxpacoil [1]	31	10.30	31	11.20	31	23.00	1	3.26	American	McAllister Bros.	431.0	59.2	27.0	San Pedro	New York	Crude oil	9,500	7,862	5,042
Kofuku Maru	31	4.00	31	11.37	31	22.33	31	22.33	Japanese	Kabushiki Kaisha Kawasaki	385.0	51.0	26.6	San Francisco	Fayal Island	Wheat	7,837	6,209	4,763
R-32 [11]	31	12.09	1	6.05	1	13.25	1	13.25	American	U. S. Navy	175.0	16.0		Balboa	Cristobal				
R-26 [11]	31	12.09	1	6.05	1	13.25	1	13.25	American	U. S. Navy	175.0	16.0		Balboa	Cristobal				
R-27 [11]	31	12.09	1	6.05	1	13.25	1	13.25	American	U. S. Navy	175.0	16.0		Balboa	Cristobal				
O-2 [11]	31	4.08	1	6.20	1	13.22	1	13.25	American	U. S. Navy	175.0	16.4		Balboa	Cristobal				
O-3 [11]	31	4.08	1	6.20	1	13.22	1	13.25	American	U. S. Navy	175.0	16.4		Balboa	Cristobal				
O-6 [11]	31	3.08	1	6.20	1	13.22	1	13.25	American	U. S. Navy	175.0	16.4		Balboa	Cristobal				
Oriana	1	4.30	1	9.01	1	18.20	1	21.45	British	Pacific Steam Navigation Co	465.7	56.2	23.3	Punta Arenas	Liverpool	General	3,785	8,620	5,345
Santa Tecla	1	8.40	1	10.19	1	18.57	1	23.30	American	Grace Line	298.6	40.0	20.6	Samanco	New York	[14]	2,547	2,832	1,803
Agwisea [1]	1	15.35	2	6.30	2	19.32	2	19.32	American	N. Y. & Cuban Mail S. S. Co	368.3	62.7	27.0	San Pedro	New York	Crude oil	11,502	9,802	6,961
O-8 [11]	28	14.00	2	6.38	2	14.55	2	14.55	American	U. S. Navy	175.0	16.4		Cristobal	Cristobal				
Iowan	1	6.30	2	6.55	2	18.25	2	18.25	American	American-Hawaiian Line	407.7	53.7	21.0	Seattle	Boston	General	5,143	7,091	5,002
American	1	18.18	2	7.12	2	20.30	3	2.10	American	American-Hawaiian Line	406.8	51.1	25.0	Portland	Savannah	General, lumber	5,023	5,918	4,112
India [1]	1	15.15	2	8.05	2	18.52	2	21.00	Dutch	Anglo-Mexican Petroleum Co	450.5	58.2	29.0	San Pedro	Tampico	Crude oil	9,268	8,239	5,521

[1] Tanker. [11] Submarine. [12] Lumber, copper, general. [13] For orders. [14] Sugar, coffee, ivory nuts, cocoa, etc.

Santa Olivia	2	2.00	2	9.08	2	20.35	2	30.35	American	Pacific Mail Steamship Co	420.0	53.0	21.0	San Francisco	Baltimore	General	4,009	6,779	4,921
Corvus	2	6.30	2	9.38	2	21.25	2	21.05	American	Argonaut Steamship Line	410.0	54.2	23.0	Seattle	Baltimore	Lumber, general	6,312	6,604	4,655
Agwismith [1]	2	6.33	2	10.02	2	22.45	2	22.45	American	Ward Line	499.9	68.1	27.8	San Pedro	New York	Crude oil	14,868	10,600	7,447
Strombus [1]	2	7.00	2	10.29	3	1.39	5	7.26	British	Anglo-Saxon Petroleum Co	420.0	52.0	26.3	San Pedro	Cristobal [17]	Fuel oil	8,053	6,495	4,741
Sciota [15]	1	19.15	2	9.49	2	23.23			American	U. S. Navy	155.0	30.0		Balboa	Cristobal				
Agwilake [1]	2	8.40	2	10.42	2	23.40	2	23.40	American	Ward Line	468.3	62.7	28.0	San Pedro	Boston	Crude oil	11,937	9,802	6,957
Ecuador	1	17.55	2	11.23	2	22.24	3	17.00	American	Pacific Mail Steamship Co	380.6	48.7	21.2	San Francisco	New York	General	1,800	5,926	4,178
Paparoa	1	23.40	2	11.48	3	0.45	3	7.10	British	New Zealand Shipping Co	430.0	54.0	24.0	Littleton	London	General, frozen	3,990	8,209	6,121
Seattle [16]	31	12.15	3	6.10	3	15.05	4	0.05	American	U. S. Navy	504.0	74.0	26.1	San Francisco	New York				
H. H. Rogers [1]	2	12.35	3	6.50	3	19.30	3	19.30	American	Standard Oil Co. of N. J	500.0	68.0	29.4	San Pedro	Baton Rouge	Crude oil	15,000	10,333	7,475
Rotorua	1	23.36	3	7.24	3	19.10	3	19.10	British	New Zealand Shipping Co	526.4	61.4	24.6	Auckland	London	Frozen, general	6,608	12,846	9,439
Balboa	3	6.30	3	8.15	3	20.20			Colombian	Compania Costanera Colombiana	190.0	29.1	13.10	Tumaco	Cristobal	General	367	737	335
Betterton [1]	2	11.20	3	11.55	3	21.13	4	6.27	American	Walker & Daly (S. B.)	431.0	59.2	25.1	Los Angeles	Baltimore	Crude oil	9,000	7,822	4,494

[1] Tanker. [15] Tug *Sciota*, assisted by tug *Curlew* towed crane *Hercules* to Cristobal. [16] U. S. Cruiser. [17] For orders.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 28	Abangarez	United Fruit Co	New Orleans via Habana.	October 28	Adalia	Hamburg-American Line	Cartagena.
October 28	Pastores	United Fruit Co	Port Limon.	October 28	Pastores	United Fruit Co	New York via Habana.
October 29	San Benito	United Fruit Co	Boston via Habana.	October 29	Abangarez	United Fruit Co	Bocas del Toro.
October 30	Ulua	United Fruit Co	New York via Habana.	October 30	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
October 31	Carrillo	United Fruit Co	New York via Kingston.	October 31	San Benito	United Fruit Co	Boston via Port Limon.
October 31	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.	October 31	Ulua	United Fruit Co	Port Limon.
October 31	Sixaola	United Fruit Co	Colombian ports.	November 1	Carrillo	United Fruit Co	Colombian ports.
November 1	Abangarez	United Fruit Co	Bocas del Toro.	November 1	Sixaola	United Fruit Co	New York via Kingston.
November 1	Ulysses	Panama Railroad Steamship Line	Norfolk.	November 1	Abangarez	United Fruit Co	New Orleans.
November 1	H. M. S. Wistaria	British Government	Cartagena.	November 1	Venezuela	Royal Netherlands W. I. Mail Co	Port Limon.
November 2	Ohio [18]	E. W. Scripps	High Seas.				
November 2	Panama	Panama Railroad Steamship Line	New York via Haiti.				
November 3	Venezuela	Royal Netherlands W. I. Mail	Port Limon.				

[18] Yacht.

PORT OF BALBOA.

October 31	Santa Maria	Union Oil Co. of California	Port San Luis.	November 1	Santa Maria	Union Oil Co. of California	San Pedro.
November 3	Coalinga	Union Oil Co. of California	Port San Luis.				

* Other than ships passing through the Canal.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended November 5:

Steamships *Salvador*, repair winch shaft, stern of dinghy, rail and forestay; manufacture one hatch tarpaulin and 6 fire bars for galley range, etc.; *Panama*, repair miscellaneous piping, fire tools, sanitary pump, port and starboard hot wells, 4 cargo blocks, cargo hooks, fountain block, and port door; bore valve chamber and cylinder of No. 3 dynamo; furnish new piston and valve; renew slippers and true up crank shaft and fit flywheel to same; install wooden bulkheads from tank top to between deck in athwartship bunker; fit new head on starboard main condenser; scale and paint orlop deck and engine room bunker; manufacture two new valve chamber heads for boiler feed pump, etc.; *Jamaica*, paint crew and passenger accommodations; repair gangway, rails, hatches, davit, and ventilators; anneal and test steering and derrick chains; manufacture throttle valve gland and bolts and link for derrick gear, etc.; *Venezuela*, machine two H. P. rings; manufacture two piston rods for general service pump; renew piping to hot water tank; clear plugged pipe, etc.; *Ulysses*, repair auxiliary circulating pump; fit plate over crack, starboard side, forepeak; scale, clean and cement wash forward topside tanks; scale furnaces and sweep tubes, etc.; *Lautaro*, *Sunugentco*, *Betterton*, *Susherico*, *Mayebashi Maru*, yacht *Ohio*, tug *Tavernilla* and launch *Mary B*, minor repairs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending October 27, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Calamares	United Fruit Co	October 21	October 21	37	80
Santa Barbara	Grace Line	October 21	October 22	253	275
Garfield	Grace Line	October 21	October 23	570	290
La Navarre	French Line	October 21	October 24	174	342
Acajutla	Pacific Steam Navigation Co	October 22		109	
Pastores	United Fruit Co	October 23	October 24	168	35
A. C. Bedford	Standard Oil Co. of N. J	October 24	October 26	12,287	[2]
Huallago	Peruvian Line	October 24	October 26	4	613
Sixaola	United Fruit Co	October 24	October 25	128	117
Saramacca	United Fruit Co	October 24	October 25	663	172
Santa Teresa	Grace Line	October 24	October 25	1	50
Lochkatrine	Pacific Steam Navigation Co	October 25	October 26	[1]	2
Coronado	Elders & Fyffes, Ltd	October 25	October 25	18	[2]
Zacapa	United Fruit Co	October 25	October 25	458	4
Newport	Pacific Mail Steamship Line	October 25		72	
Gen. W. C. Gorgas	Panama Railroad Steamship Line	October 25		2,603	
Urubamba	Peruvian Line	October 25		3,250	
Speaker	Leyland Line	October 25	October 26	727	[2]
Ebro	Pacific Steam Navigation Co	October 26	October 27	[1]	3
Santa Clara	Grace Line	October 27		172	
Gen. O. H. Ernst	Panama Railroad Steamship Line	October 27		308	
Leon XIII	Spanish Line	October 27		111	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 3, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Santa Maria	Santa Maria Steamship Co	October 31	November 1	10,500	
Ecuador	Pacific Mail Steamship Co	November 1	November 2	113	
Venezuela	Pacific Mail Steamship Co	November 2	November 3	3	
Coalinga	Union Oil Co	November 3	November 4	10,000	

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone, or "The Panama Canal, Washingtan, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., November 14, 1923. No. 14.

Traffic Prospects.

The following forecast of traffic through the Panama Canal in the early future has been compiled from information furnished by local steamship agents and from other available sources.

Ten local steamship agencies replying prior to November 12 to the questionnaire mailed at the beginning of the month, report 199 transits handled by them in September and 221 transits in October. For November they anticipate 225 transits. These agents represent about half the shipping which uses the Canal.

From the Canal's own records and from various official and trade publications the following additional information has been compiled bearing on traffic prospects:

CALIFORNIA OIL TRADE.

In a paper read before the American Association of Petroleum Geologists at Los Angeles in September, Joseph Jensen, geologist of the Amalgamated, Associated and Pacific Oil companies, expressed the opinion that the 3 principal oil fields of Southern California (Huntington Beach, Long Beach, and Santa Fe Springs) had reached the peak of production in that month, with a daily output of 702,000 barrels. He submitted a detailed estimate of future production, month by month to December, 1924, at which time he thinks it will have declined to 98,000 barrels a day. Some of his intermediate estimates are: December, 1923, 550,000 barrels; March, 1924, 331,000 barrels; June, 1924, 219,000 barrels, and September, 1924, 153,000 barrels.

If this forecast of oil production proves to be substantially correct, and it is confirmed by other expert opinions recently published, then the tanker traffic from the California fields will decline very rapidly, and may disappear completely before the end of 1924. The number of tanker transits has already fallen off; there were only 154 in October, as compared with 159 in September, a shorter month, 173 in August, 171 in July, and 173 in both June and May.

GROWTH OF GENERAL TRAFFIC.

While California oil has been the most important single factor in the traffic of 1923, there has been a healthy growth of other trades through the Canal. The cargo in transit, exclusive of California oil, in September, 1923, was 1,258,824 tons, as compared with 1,080,122 tons in September, 1922. The increase is equivalent to 16.5 per cent.

UNITED STATES INTERCOASTAL TRADE.

While all authorities are agreed that the United States intercoastal trade is overtonnaged, this does not seem to deter the extension of existing services and the entrance of new companies. The total cargo handled is still increasing at a fairly constant rate. Westbound cargo, for instance, aggregated 764,565 tons during the first quarter of the fiscal year 1923, as compared with 489,159 tons in the corresponding quarter of 1922. In the case of eastbound cargo it is difficult to segregate the general business from the oil business. It is reasonable to expect that increasing competition will result in a more intensive solicitation of cargo and result in a further expansion of the intercoastal trade to the benefit of the Panama Canal, although individual steamship lines may find the business unprofitable. The only thing likely to check this expansion would be a general business depression in the United States, which is not anticipated at this time.

Three new steamship companies have recently been incorporated to handle cold storage cargoes in the intercoastal trade. These are the Ocean Fruit Express, the

California-New York Steamship Company, and the California Fruit Ship Line. Reports in the various marine publications indicate that these companies have ample capital and are closely allied with the large shippers of Pacific Coast fruit. Some fruit is already finding its way to east coast markets by water, but the volume of these shipments has not been large, and none of the existing lines appears to be making a specialty of this business. When the Pacific Coast fruit business is properly developed it will be important.

CANADIAN DEVELOPMENTS.

Beginning with the steamer *Canadian Winner* on October 29, the Canadian Government Merchant Marine is establishing a new monthly service from Vancouver, B. C., to Avonmouth, England. The second sailing is scheduled for November 20. Four steamers of 8,400 tons deadweight capacity will be used in the service.

A second Canadian intercoastal service, with monthly sailings, has been announced. The Anchor-Donaldson Line will provide the tonnage. Sailings will be from Montreal in summer and fall and from St. John's, N. B., in the winter. Vancouver is the Pacific terminal. The first steamer in this service left Montreal on October 20.

TRADE BETWEEN UNITED STATES AND FAR EAST.

The heavy shipments of reconstruction material to Japan, anticipated in some quarters, have not as yet developed. Cargo moving through the Canal from the United States to the Far East in recent months has been:

	Tons.
July	110,665
August	116,525
September	76,489
October	102,386

It is quite possible, however, that this trade may ultimately be stimulated. *Commercial Reports* contains the following from our commercial attache at Tokio:

"It is estimated in Tokio that the rebuilding of the devastated area of Japan will be extended over a period of from 5 to 7 years and that the full employment of labor over that period will cause great prosperity throughout the Empire. This prosperity will not only be reflected in the foreign purchases of building and construction materials * * * but will increase the purchasing power of the masses at large and cause the imports of all necessities and so-called luxuries to show increases. Plans and specifications for the rebuilding of the affected area are being drawn up at present by the capital restoration board, and it is expected that they will be completed in time to be submitted to the Diet when it convenes on November 10. Meantime no permanent construction is permitted, and temporary buildings are springing up like mushrooms throughout the stricken area."

SOUTH AMERICAN TRADE.

Reports concerning the nitrate trade are still uniformly optimistic. South American trade as a whole is increasing. During the first quarter of the fiscal year 1923 cargo routed through the Canal to South America totaled 300,255 tons, as compared with 256,814 tons in 1922, and exports from South America during the same period totaled 952,356 tons, as compared with 587,729 tons in 1922.

PROBABLE DECLINE OF TOTAL TRAFFIC.

Considering all the factors involved, it seems probable, owing to the loss of California oil shipments, that traffic through the Canal may drop in the early future from the high mark of 2,000,000 net tons a month to approximately 1,500,000 net tons a month. It may even go lower, but normal increase in other trades should prevent a further decline.

"Service to Ships."

The October, 1923, issue of *The American Officer* published a letter from the master of the steamship *Agwisea*, from which the following is quoted:

"There is no port in the United States where the shipmaster receives the assistance and cooperation he does in the Panama Canal. This is the general opinion expressed by both American and foreign shipmasters, as everything is done to assist them in their duties and expedite shipping."

Tanker Traffic Through the Panama Canal in October, 1923.

The total number of tankships transiting the Canal during the month of October, 1923, was 154. This is 5 less than the month of September and 19 less than the month of August. Tankers comprised about 36 per cent of the total number of vessels through the Canal in October, about 43 per cent of the Panama Canal net, and carried about 41 per cent of the total cargo.

The following tabulation shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during October, 1923, segregated by nationality of vessels and direction of transits:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific:				
British	10	52,683	$46,712.40	43,938
United States	73	448,003	327,057.27	23,800
Total, October, 1923	83	500,686	373,769.67	67,738
Total, September, 1923	70	403,550	300,127.25	41,023
Total, August, 1923	95	558,087	414,114.74	68,148
Pacific to Atlantic:				
British	7	34,483	35,862.42	57,437
United States	64	390,363	402,810.00	745,757
Total, October, 1923	71	424,846	438,672.42	803,194
Total, September, 1923	89	521,953	544,243.53	982,297
Total, August, 1923	78	471,268	493,727.78	886,519

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles:				
October, 1923	71	438,156	$316,678.35	.....
September, 1923	57	341,605	247,448.41	.....
August, 1923	81	482,677	348,840.65	.....
From Los Angeles:				
October, 1923	67	407,398	421,704.10	780,082
September, 1923	82	481,630	504,616.25	926,479
August, 1923	70	361,388	380,780.17	720,084

Proportion of Tanker Traffic to Total in Past Year.

During the year, November 1, 1922, to October 31, 1923, there were 4,693 commercial transits of the Panama Canal, made up of 3,221 general cargo vessels and 1,472 tankships. Of the total number of transits during this period, 31.4 per cent were tankers and 68.6 per cent general cargo carriers.

As nearly all of the tankers passing through the Canal show some port on the west coast of the United States as the port of origin or destination it would indicate that the large increase in traffic through the Canal during this period is due primarily to the development of the oil fields in that region.

From the following table, which shows the commercial transits through the Canal for the period segregated between tankships and general cargo carriers, it will be seen that the daily rate of transits

by general cargo carriers for the months of November, 1922, and October, 1923, was almost the same:

1922-1923.	Total Commercial Transits.			Average Daily Transits.		
	Tankers.	General.	Total.	Tankers.	General.	Total.
November	39	255	294	1.3	8.5	9.8
December	39	265	304	1.3	8.5	9.8
January	51	301	352	1 7	9 7	11 4
February	73	253	326	2.6	9.0	11.6
March	119	290	409	3.8	9.4	13.2
April	148	256	404	5.0	8.5	13.5
May	173	246	419	5.6	7.9	13.5
June	173	244	417	5.8	8 1	13 9
July	171	303	474	5.5	9 8	15.3
August	173	281	454	5.6	9.1	14 7
September	159	254	413	5 3	8 5	13.8
October	154	273	427	5 0	8 8	13 8

The following table shows the net tonnage and tolls segregated for the same period:

1922-1923.	Panama Canal Net Tonnage.			Tolls.		
	Tankers.	General.	Total.	Tankers.	General.	Total.
November	227,118	1,110,162	1,337,280	$194,159.04	$1,070,277.50	$1,264,436.54
December	222,604	1,149,059	1,375,263	203,017.79	1,109,559.33	1,313,570.12
January	297,485	1,313,207	1,610,692	254,735 56	1,250,549.99	1,505,285 55
February	454,492	1,075,055	1,529,547	397,267.71	1,026,686.50	1,423,954.21
March	713,259	1,274,933	1,988,192	627,017.58	1,200,700.86	1,827,718.44
April	884,890	1,122,800	2,007,690	782,934.76	1,098,003.39	1,878,938.15
May	1,017,185	1,111,229	2,128,414	906,731 91	1,065,430.13	1,972,162.04
June	1,005,169	1,030,733	2,035,902	901,241.91	996,801 89	1,898,043.80
July	1,000,267	1,309,760	2,310,027	888,112.95	1,236,297.37	2,124,410.32
August	1,029,355	1,203,235	2,232,590	907,842.32	1,142,814 65	2,050,656.97
September	925,503	1,119,049	2,044,552	844,370.78	1,058,082.83	1,902,453.61
October	924,532	1,214,933	2,139,465	812,442.09	1,176,165 60	1,988,607.69

From the above table it will be seen that there has been little fluctuation in the net tonnage and tolls during the year except in the tanker traffic.

The peak of the tanker traffic seems to have been reached in the period from May to August, inclusive, there having been slight decreases in each of the succeeding months. The general traffic seems to be holding about even or to be slightly on the increase.

Executive Order.

Order of Transfer.

By virtue of the authority vested in me as President of the United States of America, it is hereby ordered that Buildings Nos. 1107, 1113, 1409 and 1411, located at Cristobal, Canal Zone, be, and the same are hereby transferred, exclusive of the sites thereof, but including free use of such sites, from the Panama Canal to the War Department.

CALVIN COOLIDGE

THE WHITE HOUSE,
October 16, 1923.

[No. 3917.]

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended November 10:

Steamships *Chuky*, install one 36-inch steel closed chock; renew one staving plate; renew two deck plates, fair beams and frames and patch doubler under deck in wake of damages; repair port lights; repair refrigerator manifold valve, and safety valve; *Hercules*, dock and undock; install patch on hull; *Tulsagas*, furnish services of diver

and outfit to examine hull; calk leaky rivets and seams inside and outside of forepeak tank; repair engine room ventilators, ice machine, circulator and main condensors; manufacture blower engine parts and repair ventilator gear; *Toco*, draw H. P. piston rod on main engine; overhaul metallic packing and stuffing boxes; manufacture piston rings for ballast pump; repair auxiliary pipe, bilge pipe, fire system, and circulating water pipe; furnish steam to assist in firing up ship; *S. M. Spalding*, repair telemotor gear; *Hugoton*, dock and undock; calk leaky rivets in hull; furnish services of diver and outfit to examine propeller; remove broken propeller blade and install spare; *Talaralite*, dock and undock; clean and paint hull; repair boilers, sea valves, miscellaneous auxiliary units in engineer's department, auxiliary steam piping, deck pipe, cargo tanks, anchor chains, and general miscellaneous repairs in all departments; *Rio Claro*, examine blower; remove, test turbine; repair and reinstall; *Charles Pratt*, remove part of superheater cowls; manufacture two plugs; repair superheater drain lines and manufacture 8 piston rings; *Willpolo*, furnish diver's service to examine hull; manufacture and install temporary bulkhead in wake of damages; *Radnor*, repair feed pump and blower engine; motorship *Atrato*, weld cylinder head, cylinder and cylinder frame of Diesel engine and make necessary repairs to engine in wake of damages; dredge *Culebra*, make miscellaneous minor repairs to engine and deck departments; dock and undock; paint underwater body and upper work; manufacture and install temporary hatch covers, bulkheads, sheathing, etc., to put dredge in ocean-going condition; U. S. submarine *O–1*, dock and undock; paint and routine docking repairs; steamships *Akera*, *Betterton*, *Eelbeck*, *Legato*, *Rimutaka*, *Rotorura*, *Cecil County*, *Dean Emery*, *Iowan*, *Minneola*, *Robin Gray*, and *Suportco*, minor repairs.

PREVIOUSLY REPORTED.

Floating caisson *No. 1*, dock and undock; routine repairs; barge *No. 138*, dock and undock; alterations and general repairs; dredge *Paraiso*, manufacture and install additional pontoons; U. S. submarines *O–7*, and *O–9*, routine docking repairs; steamship *Colon*, reboilering; general repairs and reconditioning; Columbian coast guard cutter *No. 3*, and launch *L 55*, general repairs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending November 3, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Santa Clara	Grace Line		October 28		106
Leon XIII	Spanish Line		October 28		103
Lagarto	Pacific Steam Navigation Co	October 28	October 29	240	[3]
Abangarez	United Fruit Co	October 28	October 29	542	56
Pasteres	United Fruit Co	October 28	October 28	17	148
Santa Elisa	Grace Line	October 29	October 29	6	[3]
W. R. Irish	Atlantic Refining Co	October 29	October 30	535	[3]
Acajutla	Pacific Steam Navigation Co		October 29		1,122
Newport	Pacific Mail Steamship Co		October 30		2,103
Gen. W. C. Gorgas	Panama Railroad Steamship Line		October 30		4,054
Gen. O. H. Ernst	Panama Railroad Steamship Line		October 30		169
Lautaro	Pacific Steam Navigation Co	October 29	October 31	[1]	239
San Benito	United Fruit Co	October 29	October 31	12	137
Ulua	United Fruit Co	October 30	October 31	240	75
Cissy	New Orleans & S. A. S. S. Line	October 30	October 31	11	26
Dintel lijk	Holland-American Line	October 30	October 31	195	65
Carrillo	United Fruit Co	October 31	November 1	93	174
Venezuela	Royal Netherlands W. I. Mail	October 31	November 1	534	¾
Sixaola	United Fruit Co	October 31	November 1	[2]	87
Abangarez	United Fruit Co	November 1	November 1	1	7
Santa Tecla	Grace Line	November 1	November 1	193	[3]
Teno	Chilean Line	November 1	November 1	[2]	300
Strombus	Anglo-Saxon Petroleum Co	November 2	November 5	8,053	[3]
D. Otavi	Hamburg-American Line	November 2	November 3	157	38
Panama	Panama Railroad Steamship Line	November 2		2,807	
Ecuador	Pacific Mail Steamship Co	November 2	November 3	188	86
Venezuela	Pacific Mail Steamship Co	November 2	November 2	153	96
Venezuela	Royal Netherlands W. I. Mail	November 3	November 3	2	123
Balboa	Compania Costernia Colombiana	November 3		367	

[1] 1 case. [2] No cargo discharged. [3] No cargo laded.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 10, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Eclipse	3	13.37	4	6.29	4	14.44	4	15.58	American	Barber Line (S. B.)	440.0	56.0	28.7	New York	Manila	(5)	8,625	8,293	6,080
Marore [1]	3	16.53	4	6.28	4	15.46	4	23.37	American	Ore Steamship Co	550.3	72.2	21.0	Baltimore	Curz Grande	Ballast		15,551	4,297
Tulsagas [1]	3	22.32	4	7.25	4	16.25	8	20.00	American	McAllister Bros. (S. B.)	431.0	59.2	22.0	New Orleans	Balboa	Fuel oil	6,250	7,817	5,049
Genoa Maru	3	23.15	4	7.18	4	16.36	4	19.35	Japanese	Nippon Yusen Kaisha	425.0	53.0	23.0	New York	Kobe	(6)	5,806	6,897	5,063
Foldenfjord [1]	4	6.20	4	8.30	4	17.04	4	21.40	Norwegian	Norwegian-American Line	430.0	59.0	19.0	London	San Pedro	Ballast		7,789	5,520
Gargoyle [1]	4	8.10	4	8.55	4	17.18	4	18.20	American	Vacuum Oil Co	425.0	57.2	18.0	Paulsboro	San Pedro	Ballast		7,510	4,989
Mayebashi Maru	3	17.58	4	9.48	4	18.13	4	19.24	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.8	New York	Otaru	(7)	9,686	8,012	5,749
Urubamba	1	21.53	4	10.38	4	17.58	4	19.30	Peruvian	Peruvian Line	381.2	41.1	19.0	Cartagena	Callao	Cattle, general	222	4,803	2,951
Magellan	4	8.02	4	Noon	4	18.57	4	20.12	British	Pacific Steam Navigation Co	461.6	59.3	21.3	Hull	Coronel	General	1,969	8,817	6,063
Birkenhead [1]	4	12.10	4	12.15	4	20.02	4	21.02	American	Vacuum Oil Co	425.0	57.0	19.6	Philadelphia	San Pedro	Ballast		7,502	4,982
Sciota [2]			4	10.35					American	U. S. Navy	155.0	30.0		Cristobal	Paraiso	(8)			
J. M. Danziger [1]	4	15.08	5	6.21	5	17.12	5	18.30	American	Pan-American Pet. & Trans. Co	430.0	58.2	19.0	New York	San Pedro	Ballast		6,963	4,886
Strombus [1]	3	13.39	5	7.26	5	17.16	5	18.30	British	Anglo-Saxon Petroleum Co	410.0	52.0	21.6	Cristobal	San Pedro	Ballast		6,495	4,741
Chas. R. McCormack	4	19.00	5	8.30	5	18.06	5	19.44	American	McCormack Intercoastal Line	401.0	53.2	21.6	New York	Los Angeles	General	3,600	7,082	5,167
Nebraskan	4	22.05	5	8.30	5	18.16	5	19.44	American	American-Hawaiian Line	368.6	55.2	24.10	Savannah	Los Angeles	General, steel	6,430	5,707	3,643
Hercules	4	23.35	5	9.40	5	19.03	8	17.30	Spanish	Cia. Anonima Maritime	373.0	48.0	12.9	Cape Verde	Arica	Ballast		4,229	2,777
Northumberland	5	3.45	5	9.42	5	19.11	5	20.17	British	Federal Steam Navigation Co	530.5	63.5	29.0	New York	Brisbane	General	6,560	12,821	8,700
Bawean	5	6.55	5	10.58	5	20.07	5	21.15	Dutch	Netherland Steam Navigation Co	421.0	55.0	18.4	Newport News	Portland	Ballast		6,573	4,661
Edgefield	5	8.05	5	11.50	5	20.59	5	22.03	American	Tampa Interocean S.S. Co. (S.B.)	490.6	54.2	23.0	Port Arthur	Shanghai	General	5,596	7,476	5,900
Gen. G. W. Goethals	4	8.00	5	11.57	5	20.35	5	22.00	American	Panama Railroad Steamship Line	353.0	48.6	24.0	New York	Guayaquil	(9)	1,699	5,226	3,617
Robert Dollar	5	9.55	5	Noon	5	21.10	6	2.03	British	Dollar Line	523.5	65.0	22.0	Genoa	Manila	General	6,326	12,370	8,885
Saint Louis	4	23.20	5	13.01	5	21.30	5	22.34	French	French Line	398.0	50.0	17.0	Havre	Talcahuano	General	539	5,857	4,166
A. B. C. Barge No. 1			5	11.28	5	13.54			American	Perino & Co				Cristobal	Gatun Lake	Ballast		12	12
Ruby [3]			5		5	9.20			American	E. J. Hooper				Cristobal	Gatun Lake	Ballast		1	1
Argonne [4]	5	12.40	6	6.14	6	16.53	8	12.42	American	U. S. Navy	436.9	58.0	23.0	New York	San Francisco	(10)	369		
Hanover	5	16.19	6	6.25	6	17.51	6	19.10	American	Tampa Interocean S.S. Co. (S.B.)	435.0	57.6	24.0	New Orleans	Legaspi	General	7,026	7,982	5,911
Hugoton [1]	5	18.05	6	7.08	6	16.49	6	17.56	American	C. D. Mallory & Co	434.8	56.2	21.0	Baton Rouge	San Pedro	Ballast		7,429	5,175
Romsdalshorn	5	18.22	6	7.20	6	17.57	6	19.34	Norwegian	G. & M. Olson	420.0	53.0	15.6	Norfolk	Antofagasta	Ballast		6,592	4,733
Maple Branch	6	0.50	6	8.20	6	18.50	6	20.06	British	F. & W. Ritson	400.0	52.0	19.9	Glasgow	Talcahuano	General	2,750	5,618	4,116
Balboa	3	20.20	6	8.30	6	18.39	6	21.56	Colombian	Colombian Maritime Co	190.0	29.0	11.5	Cristobal	Tumaco	General	33	737	335
Standard [1]	6	7.35	6	9.40	6	19.33	6	21.03	American	Standard Oil Co	523.0	68.0	22.10	Baltimore	San Pedro	Ballast		12,171	8,782
Cerro Ebano [1]	6	8.32	6	9.38	6	19.40	6	21.03	American	Pan-American Pet. & Trans. Co	480.5	66.0	22.0	New York	San Pedro	Ballast		9,398	6,453
Telemachus	6	6.10	6	10.55	6	20.19	6	21.46	British	Ocean Steamship Co	454.7	54.0	27.4	Boston	Shanghai	General	6,617	7,595	5,483

[1] Tanker. [2] Tug. [3] Launch. [4] Transport. [5] Coal, general, case oil and cotton. [6] Machinery, tinplate, and cotton. [7] Steel rails, cotton, and general. [8] Towing *Ajax*. [9] Cement, malt, asphalt, and general. [10] Household effects and general.

Agwibay[1]	6	9.00	6	11.30	6	20.28	6	21.46	American	Guaranty Trust Co	468.3	62.7	17.9	Baltimore	San Pedro	Ballast		9,776	6,903
Curlew[11]			6	11.00					American	U. S. Navy				Cristobal	Paraiso	(14)			
Sciota[11]			6	11.00					American	U. S. Navy	155.0	30.0		Cristobal	Paraiso	(14)			
W. F. Burdell[1]	7	5.45	7	6.20	7	17.35	7	22.40	American	Pure Oil Steamship Co	435.0	56.0	21.0	Philadelphia	San Pedro	Ballast		7,434	5,093
K. R. Kingsbury[1]	6	18.30	7	6.21	7	17.50	7	18.55	American	Standard Oil Co	440.0	58.0	21.4	Baltimore	Los Angeles	Ballast		9,033	5,938
Lewis Luckenbach	7	0.55	7	9.03	7	18.43	7	20.00	American	Luckenbach Line	496.0	68.2	22.0	Boston	Seattle	General	5,589	11,487	8,762
Alvarado	6	9.20	7	10.32	7	18.44	7	20.49	British	Pacific Steam Navigation Co	303.0	43.0	16.4	New York	Guayaquil	General	470	2,844	1,748
Clauseus	7	11.35	7	11.55	7	19.49	8	4.18	American	Planet Steamship Corporation	409.8	54.2	21.0	Baltimore	Honolulu	General	7,605	6,581	4,795
Gulfqueen[1]	7	11.20	7	12.05	7	19.24	7	20.30	American	Gulf Refining Co	419.5	56.5	18.6	Chester	Los Angeles	Ballast		6,890	5,029
Charles H. Cramp	7	12.45	7	12.55	7	20.35	8	1.25	American	Argonaut Steamship Line	404.6	53.0	28.0	Baltimore	Seattle	General, steel	8,255	6,755	4,750
Santa Ana	7	12.53	7	13.45	7	20.58	8	16.58	American	Grace Line	360.2	51.6	23.0	New York	Talcahuano	General	2,646	5,776	4,081
Tomahawk[12]	4	4.50	7	8.09	9	11.16			American	Dr. H. E. Evans	34.1	10.4		Cristobal	Puntarenas	Ballast		13	9
Cape May	7	11.45	8	6.05	8	18.38	8	19.41	American	U. S. & A. Line (S. B.)	415.0	53.1	25.0	New York	Brisbane	Oil, general	6,000	7,072	4,944
Panama[13]	7	19.10	8	6.14	8	18.32	8	19.26	Danish	East Asiatic Steamship Co	410.0	55.1	21.7	Copenhagen	Vancouver	General	4,512	7,027	5,341
Chilore[1]	7	21.05	8	7.25	8	19.48	9	2.10	American	Ore Steamship Co	550.0	72.0	21.0	Baltimore	Cruz Grande	Ballast		14,538	9,348
Director	8	6.15	8	7.45	8	19.25	8	20.35	British	Charente Steamship Co	398.5	48.5	18.2	New Orleans	Vancouver	Ballast		5,472	3,753
Masula	8	8.00	8	8.40	8	21.46	9	7.55	British	British-India Steam Nav. Co	450.0	58.0	27.3	Barry	Sydney	General	6,682	8,117	5,240
Finland	8	10.20	8	11.15	8	20.51	9	4.18	American	International Mercantile Marine	560.0	60.2	21.0	New York	San Francisco	(15)	1,196	13,559	9,016
West Jappa	8	6.27	8	11.10	8	22.15	8	23.50	American	Swayne & Hoyt (S. B.)	410.5	54.2	22.3	Buenos Aires	Seattle	General	5,726	6,755	4,873
Californian[13]	8	13.35	9	6.10	9	17.40	9	18.46	American	American-Hawaiian Line	445.0	59.8	21.0	New York	Puget Sound	General	4,809	8,567	6,020
Port Hacking	8	14.33	9	7.10	9	18.00	9	19.00	British	Commonwealth & Dom. Line	440.0	55.0	23.0	New York	Auckland	General	2,820	7,885	5,847
Sutorpeo	8	16.30	9	8.45	9	19.10	9	20.15	American	Submarine Boat Corporation	324.0	46.0	22.10	Newark	Seattle	(16)	4,000	3,984	2,612
Edward L. Doheny, Jr.[1]	9	3.35	9	9.55	9	20.00	9	20.43	American	Pan-American Pet. & Trans. Co	467.6	62.7	21.0	New York	San Pedro	Ballast		9,655	7,166
W. E. Hutton[1]	9	6.00	9	10.35	9	20.40	9	21.46	American	Pure Oil Steamship Co	435.0	56.0	21.0	Philadelphia	Los Angeles	Ballast		7,481	5,120
Gaelic Prince	9	10.17	9	13.10	9	21.12	9	22.03	British	Prince Line, Ltd	449.5	57.3	28.10	New York	Yokohama	(17)	9,027	9,160	6,698
Ruahine	9	19.10	10	6.15	10	13.23	11	7.52	British	New Zealand Shipping Co	480.6	60.3	23.9	London	Wellington	General	3,463		
Eastern Knight	9	14.45	10	6.15	10	17.27	10	19.36	American	Colombia & Pacific S. S. Co	415.0	55.7	16.10	New York	Seattle	General	2,362	7,643	5,657
Port Victor	9	18.25	10	7.20	10	17.52	10	19.00	British	Commonwealth & Dom. Line	470.0	58.0	27.9	Glasgow	Dunedin	General	5,924	9,336	6,682
Amalienborg	9	21.45	10	7.55	10	18.15	10	22.30	Danish	C. K. Hansen	320.0	47.0	14.0	Aalborg	Mejillones	Ballast		3,567	2,460
Melville Dollar	9	22.10	10	8.32	10	18.54	10	20.32	American	Dollar Line	429.0	55.2	18.0	New York	Vancouver	General	2,500	7,581	5,519
Salvador	4	19.44	10	10.23	10	19.05	10	22.13	British	Pacific Steam Navigation Co	215.0	33.0	16.6	Cristobal	Champerico	General	1,078	1,270	735
Cecil County	10	8.00	10	11.35	10	20.05	11	1.25	American	Walker & Daly (S. B.)	431.0	59.2	17.6	Fall River	San Pedro	Ballast		8,097	5,330

[1] Tanker. [11] Tug. [12] Launch. [13] Motor ship. [14] Towing *Hercules*. [15] Paper, autos, machinery, and general. [16] Iron, machinery, and general. [17] Case oil, gasoline, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Atlantic Sun[1]	3	12.35	4	6.30	4	14.20	4	14.20	American	Sun Oil Co	429.3	59.2	27.0	San Pedro	Baltimore	Crude oil	10,626	7,567	5,283
Sesostris	3	14.30	4	6.56	4	15.15	4	23.30	German	Kosmos Line	381.4	50.4	16.5	Guayamas	Hamburg	(18)	2,246	4,979	3,380
Montpelier	3	12.30	4	7.42	4	16.35	4	16.35	American	United American Line	477.9	57.1	25.4	San Diego	Liverpool	General	8,468	6,368	4,161
Hahira[1]	3	15.12	4	7.59	4	17.00	4	17.00	American	Atlantic Refining Co	435.6	56.2	27.6	San Pedro	Philadelphia	Crude oil	10,000	7,658	5,414
Cape Henlopen[1]	3	17.00	4	8.34	4	17.44	4	17.44	American	Cape Steamship Co	434.8	56.2	26.0	San Pedro	Bayonne	Crude oil	10,228	7,425	5,202
James B. Duke	4	4.25	4	8.56	4	17.58	4	18.50	American	Garland Steamship Corporation	385.0	51.2	22.6	Tacoma	New York	Lumber	5,202	6,242	4,471

[1] Tanker. [18] Peas, hides, wool, and honey.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Borgland[19]	4	4.15	4	9.18	4	18.51	4	18.54	Norwegian	Norway-Pacific Line	362.0	51.5	21.6	San Francisco	Cristiana	Grain, general.	5,900	5,274	3,886
Mantaro	4	8 10	4	10.13	4	19 32			Peruvian	Peruvian Line	367.3	46.0	21 7	Callao	Cristobal	General	3,184	4,838	2,959
Salvador	4	8.00	4	11.24	4	19.44	10	10.23	British	Pacific Steam Navigation Co	225.0	35.4	12.9	Champerico	Cristobal	Coffee, indigo	17	1,270	735
Horace Luckenbach	4	10.00	4	11.25	4	19.50	4	22.30	American	Luckenbach Line	445.0	58.0	25.5	Portland	Boston	General	7,492	8,626	6,290
David McKelvy[1]	4	12.30	4	13.28	4	21.40	4	22.05	American	Tidewater Oil Co	430.0	59.2	28.0	Los Angeles	New York	Crude oil	11,000	7,629	5,393
Orestes	4	16.20	5	6.28	5	18.30	5	19.45	British	A. Holt & Co	392.3	47.1	22.8	Victoria	London	General	4,698	4,810	3,373
Wido	4	23.30	5	7.40	5	19.10	5	21.55	German	Roland Line	393.4	54.3	19.2	Corral	Hamburg	[21]	4,360	6,585	4,631
Centaurus	4	23.40	5	8.08	5	19.20	5	19.35	American	Planet Line	499.8	54.2	20.0	San Francisco	New York	General	4,000	6,581	4,795
Siam[19]	5	7 10	5	9.12	5	21.25	5	23.45	Danish	East Asiatic Co	410.0	55.2	28.0	Seattle	Copenhagen	General	8,888	7,098	5,303
Eurana[1]	5	1.40	5	8.44	5	20.10	5	20.10	American	International Merchant Marine	419.5	56 5	27.0	San Pedro	New York	Crude oil	9,200	6,989	4,976
F. J. Luckenbach	5	10.20	5	10.54	5	20.37	5	20.37	American	Luckenbach Line	446.0	56.1	27.6	Portland	Mobile	General	6,800	8,508	6,179
Jadden	5	15.20	6	6.23	6	18.50	7	6.15	American	Tampa Interocean S. S. Co	410 5	54.2	25.0	Hankow	New Orleans	General	7,750	7,495	5,685
San Juan	5	18.45	6	9.39	6	19.35			American	Pacific Mail Steamship Co	283.0	37.0	21.0	San Francisco	Cristobal	Coffee, general	185	2,379	1,593
Hagood	5	10.30	6	7.50	6	18.55	6	18.55	American	Cities Service Corporation	435.6	56.2	28.6	San Pedro	Boston	Crude nil	10,000	7,426	5,094
Albertolite[1]	6	2.45	6	12.50	6	22.02	7	0.05	British	Imperial Oil Co., Ltd	463.2	60.2	28.6	Lobitos	Halifax	Crude oil	11,832	8,491	5,879
London Shipper	6	21.00	7	6.33	7	18.22	7	18.22	British	Furness, Withy & Co., Ltd	450.4	58.0	30.0	San Francisco	Glasgow	General	8,222	8,412	5,725
Capsa[1]	6	11.10	7	6.41	7	18.58	7	18.58	British	Shell Oil Co. of California	400.0	52.4	26.8	San Pedro	Land's End[20]	Fuel oil[22]	7,645	6,039	4,135
Tustem[1]	6	21 45	7	7.49	7	20.08	7	20.08	American	Atlantic Refining Co	425.0	57.2	27.4	San Pedro	Philadelphia	Crude oil	10,200	7,204	4,768
Montana	6	21.15	7	7.58	7	20.10	8	0.42	French	Cie. Generale Transatlantique	429.0	50.6	25.8	Portland	Antwerp	General	6,313	6,497	4,317
Dean Emery[1]	7	0.15	7	9.16	7	22.00	7	22.00	American	Pan-American Pet. & Trans. Co	429.3	59.2	27.6	San Pedro	New Orleans	Crude oil	10,880	7,709	5,517
Acme[1]	7	0.30	7	9.30	7	22 23	7	22.23	American	Standard Transportation Co	435.0	56.0	26.0	San Pedro	Providence	Crude oil	9,495	7,165	4,926
Chuky[1]	6	7.30	7	9.51	7	20.42	7	20.42	British	Chile Steamship Co	440.8	56.1	11.0	Antofagasta	Tampico	Water ballast		7,691	4,723
San Francisco[19]	7	0.30	7	12.09	7	23.08	7	23.08	Swedish	Johnson Line	359.4	51.5	23.0	Tacoma	Gothenborg	[23]	5,267	5,238	4,019
Panaman	7	7.00	7	12.15	7	21.10	7	21.10	American	American-Hawaiian Line	407 7	53.7	24.6	Tacoma	Boston	General	6,590	7,097	5,028
Achatina[1]	7	12.20	8	6.33	8	18.50	8	18.20	British	Anglo-Mexican Petroleum Co	412.0	53.0	26.0	San Francisco	United Kdm	Gasoline	7,390	6,218	4,248
Wm. Boyce Thompson[1]	7	14.00	8	6.45	8	18 40	8	19.50	American	Sinclair Navigation Co	430.3	59.3	28.0	San Pedro	New York	Crude oil	10,000	7,780	5,562
Eagle	7	15.30	8	7.41	8	20.05	8	20.05	American	United American Lines	410.0	56.0	26.0	Portland	Baltimore	Lumber general	6,890	8,213	6,266
Hawaiian	7	14.20	8	7 59	8	19.45	8	21.05	American	American-Hawaiian Line	406.8	51.1	24.0	Portland	Philadelphia	General	5,900	6,039	4,180
Sunoil[1]	7	20.35	8	8.13	8	20.55	8	20.55	American	Sun Oil Co	430.0	58.0	26.10	San Pedro	Chester	Crude oil	10,893	7,439	5,209
San Gaspar[1]	8	6.00	8	8.59	8	21.37	8	21.35	British	Anglo-Mexican Petroleum Co	530.2	68.5	33.8	San Pedro	Tampico	Crude oil	16,119	13,422	9,350
Kenuta	8	7.15	8	11.24	8	23.30	9	2.41	British	Pacific Steam Navigation Co	491.3	52.2	24.0	Corral	Liverpool	General	5,710	6,420	4,704
Poseidon	8	7.30	8	10.07	8	22.40	8	22.40	German	Hamburg-American Line	468.0	70.0	26.0	Taltal	Rotterdam	Nitrate	8,500	7,681	5,234
Atlas Maru	7	17.20	8	11.47	8	23.38	8	23.38	Japanese	Osaka Shosen Kaisha	420.0	56.0	17.0	Hongkong	New York	General	2,301		
Santa Malta	8	10.45	8	11.59	8	21.45	9	0.20	American	Pacific Mail Steamship Co	494.6	53.9	20.0	San Francisco	Baltimore	General	2,563	6,766	4,809
Dillwyn[1]	8	15.20	9	6.36	9	20.15	9	10 15	American	C. D. Mallory & Co	435.0	56.0	28.0	San Pedro	Baltimore	Crude oil	9,000	7,441	5,180

[1] Tanker. [19] Motor ship. [20] For orders. [21] Nitrate, cotton, oil cake, bran, peas, and general. [22] Bulk. [23] Fruit, wheat, copper, and general.

Sugillenco	8	3.30	9	6.52	9	22.23	9	22 25	American	Transmarine Corporation	325.0	46.2	20.7	San Francisco	Newark	Lumber general	3,350	3,984	2,612
Geo. G. Henry[1]	9	1.45	9	8.05	9	20.52	9	20.52	American	Pan-American Pet. & Trans. Co.	435.0	56.0	26.6	San Pedro	New Orleans	Crude oil	10,230	7,221	4,988
Steel Age	8	20.20	9	8.15	9	18.35	8	18.35	American	U. S. Steel Products Co	395.5	55.0	24.6	Seattle	New London	Lumber	6,000	7,330	5,245
Henry S. Grove	9	1.30	9	8.56	9	20.18	9	22.15	American	Argonaut Steamship Line	404.6	53.9	26.0	Seattle	Baltimore	Lumber, general	7,764	6,755	4,688
Robin Hood	9	1.30	9	9.08	9	21 30	9	21 30	American	Seas Shipping Co	424.8	55.1	22.10	Vancouver	New York	Lumber, general	5,760	7,473	5,533
Aconcagua	9	7.00	9	11.18	9	20.15	10	4.10	Chilean	Chilean Line	422.8	56.2	26.6	Valparaiso	New York	General	5,436	7,758	4,707
Kosmo	9	18.45	10	6.27	10	18.25	10	20.30	British	Ellerman & Bucknall	420.0	54.1	25.6	Honolulu	Hull	General	7,460	6,599	4,992
Hesperos	10	2.30	10	8.04	10	19.35	10	20.25	Norwegian	E. I. Dupont de Nemours & Co.	389.8	54.1	25.6	Mejillones	Wilmington	Nitrate of soda	8,250	5,693	4,230
Cape Ann[1]	10	7.15	10	9.40	10	19.05	10	19.55	American	Cape Cod Steamship Co	425.8	57.0	28 0	San Pedro	New York	Crude oil	9,994	7,484	5,216
Western Scout[24]	8	Noon	10	11 58	10	20.20	10	20.20	American	U. S. Army (S. B.)	409.8	54.2	18.0	Honolulu	New York	Military supplies	1,166	6,253	4,502

[1] Tanker. [24] U. S. Army transport. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
Nov. 4	Atenas	United Fruit Co	New Orleans via Habana.	Nov. 4	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.
Nov. 4	Ulua	United Fruit Co	Port Limon.	Nov. 4	Ulua	United Fruit Co	New York via Habana.
Nov. 4	Flandre	French Line	St. Nazaire via wayports.	Nov. 5	H. M. S. Wistaria	British Government	High seas.
Nov. 5	Bolivian	Leyland Line	Liverpool via wayports.	Nov. 5	Atenas	United Fruit Co	Bocas.
Nov. 5	Lurline	Ore Fruit Steamship Co	Bluefields.	Nov. 6	Bolivian	Leyland Line	Galveston.
Nov. 6	Toloa	United Fruit Co	New York via Habana.	Nov. 6	Ulysses	Panama Railroad Steamship Line	Norfolk.
Nov. 7	Cartago	United Fruit Co	New York.	Nov. 6	Ohio[26]	E. W. Scripp	Cartagena.
Nov. 7	Suriname	United Fruit Co	New Orleans via Habana.	Nov. 7	Cartago	United Fruit Co	New Orleans via wayports.
Nov. 7	San Bruno	United Fruit Co	Boston via Habana.	Nov. 7	Toloa	United Fruit Co	Port Limon.
Nov. 7	Tivives	United Fruit Co	New York via Kingston.	Nov. 8	Tivives	United Fruit Co	Colombian ports.
Nov. 7	Camden	United Fruit Co	Houston.	Nov. 8	Suriname	United Fruit Co	New Orleans via wayports.
Nov. 8	Camito	Elders & Fyffes Line	Avonmouth via wayports.	Nov. 8	San Bruno	United Fruit Co	Boston via Limon.
Nov. 9	St. Mihiel[25]	U. S. Army	New York.	Nov. 8	Camito	Elders & Fyffes Line	Bristol via Santa Marta.
				Nov. 9	Flandre	French Line	St. Nazaire via wayports.
				Nov. 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
				Nov. 9	Camden	United Fruit Co	Baytown, Tex.

[25] Transport. [26] Yacht.

PORT OF BALBOA.

Nov. 5	Rakuyo Maru	Toyo Kisen Kaisha	Valparaiso.	Nov. 5	Coalinga[1]	Union Oil Co. of California	San Pedro.
Nov. 6	Cathwood[1]	Union Oil Co. of California	Port San Luis.	Nov. 6	Rakuyo Maru	Toyo Kisen Kaisha	Hongkong.
				Nov. 8	Cathwood[1]	Union Oil Co. of California	San Pedro.

[1] Tanker.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in October, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	109	502,003	617,389	791,722	502,333	$495,362.05	187,533
From United States to South America:							
British	2	6,201	7,831	10,953	6,572	5,951.25	3,275
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	928
Japanese	1	4,348	4,700	5,873	4,254	5,435.00	3,518
Norwegian	2	5,155	5,190	6,267	4,359	6,410.65	5,566
United States	8	24,628	29,167	42,654	24,275	26,599.00	17,670
Totals	14	43,844	51,593	73,057	43,436	50,585 90	30,957
From United States to Far East:							
British	4	18,395	22,372	29,452	18,470	22,993.75	27,970
Japanese	5	21,410	24,459	31,173	20,734	26,398.25	32,238
Norwegian	1	4,108	5,131	6,552	4,122	5,135.00	8,000
United States	4	18,154	23,666	27,712	18,039	22,692.50	34,178
Totals	14	62,067	75,628	94,889	61,365	77,219.50	102,386
From United States to Australasia:							
British	8	31,779	40,394	44,557	28,348	39,327.00	35,274
United States	1	4,530	4,561	5,840	4,497	5,473.20	3,900
Totals	9	36,309	44,955	50,397	32,845	44,800.20	39,174
From Europe to Australasia:							
British	9	50,680	64,919	81,071	51,069	63,350.00	51,425
From Europe to South America:							
British	6	22,585	28,928	36,296	22,863	26,833.02	15,885
Chilean	1	1,211	1,487	2,166	1,271	1,513.75	1,090
Dutch	1	2,494	3,195	3,981	2,423	3,117.50	3,200
French	1	4,483	4,515	4,745	2,969	5,478.00	1,704
German	5	16,183	22,545	26,496	16,265	20,228.75	16,872
Italian	1	2,705	3,774	4,676	2,636	3,381.25	485
Japanese	1	4,147	5,136	6,577	4,112	5,183.75	8,100
Jugo Slavic	1	2,615	3,713	4,996	3,239	3,268.75	5,631
Peruvian	1	2,516	3,084	3,829	2,441	2,220.48	.....
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	277
Totals	19	63,059	81,895	101,340	62,621	76,375.25	53,244
From Europe to United States:							
British	8	32,546	39,191	49,345	30,840	30,136,79	3,656
French	1	6,077	7,083	9,802	5,532	7,596.25	2,800
German	1	3,562	4,693	5,556	3,575	4,452.50	4,724
Norwegian	1	2,929	3,706	4,821	2,969	3,661.25	3,720
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	5,016
United States	1	6,067	7,913	9,836	6,007	5,697.36	.....
Totals	13	53,440	66,486	83,165	51,756	54,367.90	19,916
Foreign ships in ballast, United States coastwise:							
British	3	18,173	22,070	30,195	17,912	15,890.40	.....
Japanese	1	3,421	4,305	5,467	3,409	3,099.60	.....
Norwegian	1	4,148	5,242	6,598	4,187	3,774.24	.....
Totals	5	25,742	31,617	42,260	25,508	22,764.24	.....
From Europe to Canada:							
British	3	12,510	16,535	20,250	12,610	14,592.13	8,852
Dutch	1	5,776	7,551	9,399	5,814	7,220.00	5,965
French	1	4,953	5,298	5,693	3,499	6,191.25	3,388
Totals	5	23,239	29,384	35,342	21,923	28,003.38	18,205
From Canada to Australasia:							
British	4	12,053	15,860	19,921	12,233	15,066.25	12,260
From Canada to Far East:							
British	2	7,576	10,885	12,067	7,576	9,470.00	12,755
From United States to Canada:							
United States	1	3,132	4,381	5,096	3,132	3,915.00	6,731
From South America to United States:							
United States	2	9,750	13,409	16,186	9,717	12,187.50	6,790

ATLANTIC TO PACIFIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From West Indies to South America:							
Colombian	1	67	77	153	68	$55.44	
From United States to Philippines:							
United States	2	8,175	10,637	12,150	8,163	10,218 75	15,526
From Europe to Far East:							
British	1	7,174	7,680	9,394	6,919	8,967.50	4,770
From South America to Far East:							
Japanese	1	3,645	4,289	5,790	3,564	4,556.25	3,389
From Mexico to South America:							
British	4	17,880	20,397	30,552	18,053	22,350.00	38,530
United States	1	5,099	5,997	8,207	5,092	6,373.75	12,500
Totals	5	22,979	26,394	38,759	23,145	28,723.75	51,030
From Mexico to United States:							
United States	1	5,891	7,688	9,485	5,899	5,535.36	
South American intercoastal:							
Colombian	1	334	335	864	614	402.00	478
Italian	1	3,193	3,204	4,137	2,623	3,844.80	437
Peruvian	1	1,204	2,386	4,403	2,090	1,505.00	613
Totals	3	4,731	5,925	9,404	5,327	5,751.80	1,528
From Cristobal to South America:							
British	2	612	956	1,152	715	765.00	407
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	152
Totals	3	2,127	3,915	5,769	3,142	2,658.75	559
From Cristobal to United States:							
United States	1	1,654	2,163	2,643	1,654	2,067.50	2,119
From Cristobal to Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	2,390
From Cristobal to Gatun Lake:							
Panama	2	95	95	123	72	114.00	60
United States	1	34	34			25.50	
Totals	3	129	129	123	72	139.50	60
Totals, October, 1923	229	950,752	1,178,739	1,502,481	944,771	1,023,749 27	622,747
Totals, October, 1922	159	566,856	712,452	899,040	565,986	657,836.91	565,075
Totals, October, 1921	131	459,713	571,175	708,363	458,589	541,994.93	374,437

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	104	466,433	576,366	739,183	466,770	$581,663.75	963,778
From South America to United States:							
British	4	13,024	15,595	21,142	12,830	16,065 65	19,980
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,343
German	2	4,100	4,946	5,719	4,197	5,041.05	6,798
Peruvian	1	3,510	3,544	4,763	3,089	4,290.00	5,320
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,372
United States	11	40,570	48,878	69,783	40,291	50,568.85	108,151
Totals	20	65,940	79,114	110,856	65,847	81,885.55	147,964
From South America to Europe:							
British	7	25,444	31,355	40,587	25,514	31,805.00	43,894
Dutch	3	6,119	10,590	9,984	6,149	7,648.75	14,416
Finland	1	1,162	1,158	1,334	1,106	1,389.60	1,200
German	1	3,857	4,463	6,156	3,918	4,821.25	6,387
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	7,352
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	520
Totals	14	42,236	55,282	66,990	42,113	52,732.10	73,769
From South America to Cristobal, C. Z.:							
British	2	612	956	1,152	715	765.00	858
Peruvian	3	4,225	8,296	13,764	7,190	5,281.25	9,321
Totals	5	4,837	9,252	14,916	7,905	6,046.25	10,179

PACIFIC TO ATLANTIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From United States to Europe:							
British	6	23,835	29,000	39,053	23,917	$29,793.75	49,432
Dutch	1	4,547	7,056	7,310	4,495	5,683.75	8,832
Danish	2	8,442	10,655	13,295	8,491	10,552.50	16,645
French	1	4,879	4,959	6,674	4,230	5,967.60	7,114
German	1	2,235	3,704	3,670	2,208	2,793.75	5,348
Japanese	2	8,715	9,144	11,695	8,534	10,714.70	15,402
United States	1	3,843	5,245	6,188	3,822	4,803.75	8,596
Totals	14	56,496	69,763	87,885	55,697	70,309.80	111,369
From Canada to United States:							
Norwegian	1	967	1,152	1,650	819	1,208.75	1,917
United States	6	22,597	29,143	36,706	22,446	28,246.25	36,012
Totals	7	23,564	30,295	38,356	23,265	29,455.00	37,929
From Canada to Europe:							
British	4	13,445	18,412	21,382	13,496	16,806.25	28,798
United States	1	3,044	3,508	4,319	2,759	3,805.00	5,599
Totals	5	16,489	21,920	25,701	16,255	20,611.25	34,397
From United States to Cristobal, C. Z.:							
British	1	3,198	4,164	5,219	3,209	3,997.50	7,485
United States	1	1,654	2,163	2,643	1,654	2,067.50	143
Totals	2	4,852	6,327	7,862	4,863	6,065.00	7,628
From Central America to Cristobal, C. Z.:							
British	2	1,286	1,441	2,298	1,304	1,607.50	374
United States	1	230	240	514	229	172.80	.....
Totals	3	1,516	1,681	2,812	1,533	1,780.30	374
From Australasia to Europe:							
British	3	16,501	19,242	25,730	16,498	20,626.25	15,675
Danish	1	2,985	4,618	4,750	3,006	3,731.25	7,800
Totals	4	19,486	23,860	30,480	19,504	24,357.50	23,475
From Australasia to Canada:							
British	2	7,931	9,564	12,936	7,962	9,913.75	1,654
From Far East to United States:							
Japanese	3	13,525	16,661	21,565	13,268	16,906.25	11,058
From United States to Mexico:							
British	3	16,072	17,035	26,020	16,191	18,894.10	34,325
From west coast of South America to east coast of South America:							
Colombian	1	334	335	864	614	402.00	171
From United States to South America:							
United States	1	6,195	8,443	10,534	6,195	7,743.75	3,096
From Philippines to United States:							
United States	1	4,727	5,103	6,318	4,726	5,908.75	4,900
From Hawaii to United States:							
United States	1	4,520	5,698	7,461	4,520	5,650.00	7,000
From United States to West Indies:							
British[1]	2	2,170	2,473	3,450	2,233	5,317.50	4,729
United States	1	1,916	2,734	2,950	1,856	2,395.00	3,917
Totals	3	4,085	5,207	6,400	4,089	7,712.50	8,646
From Mexico to Spain:							
Spanish	2	4,030	5,572	6,792	3,894	5,037.50	8,394
From west coast of Canada to east coast of Canada:							
British	1	3,611	4,999	5,704	3,531	4,513.75	7,614
From South America to Egypt:							
Danish	1	3,033	3,428	4,932	3,037	3,791.25	7,100
From South America to Mexico:							
British	1	4,330	4,831	7,337	4,286	3,478.32	.....
Totals, October, 1923	198	774,243	960,736	1,241,904	776,065	964,858.42	1,504,820
Totals, October, 1922	135	482,402	597,940	753,395	476,980	597,670.09	880,788
Totals, October, 1921	124	406,483	498,379	627,449	405,087	506,940.69	611,338

[1] Includes 1 British cruiser.

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Canal Traffic for the First Half of November.

During the first 15 days of November, 1923, 221 commercial vessels transited the Canal, paying tolls to the amount of $1,060,210.54. This is an average of 14.73 ships per day and an average daily collection of tolls of $70,680.70.

In addition to the 221 commercial transits noted above, 5 small launches measuring under 20 tons, made the transit and paid tolls to the amount of $24.

During the calendar year to November 15, the average daily number of transits and tolls have been as shown in the following tabulation, commercial vessels only:

Month.	No. of transits.	Tolls.
January	11.35	$48,557.60
February	11.64	50,855.51
March	13.20	58,958.66
April	13.47	62,631.27
May	13.52	63,619.87
June	13.90	[1] 63,275.30
July	15.29	68,529.36
August	14.65	66,150.22
September	13.77	63,415.12
October	13.77	64,148.63
November (first 15 days only)	14.73	70,680.70

[1] Previous figures for June are increased by $215.28, collected in October under supplemental bill against steamship *Acme*, transiting on June 25, 1923.

With the exception of July, 1923, the present month shows the highest daily average of transits and tolls collected since the opening of the Canal. The daily averages for the first 15 days of July were: Transits, 15.80; tolls, $71,438.30.

Light Grain Shipments.

Wheat has been one of the important commodities shipped in bulk through the Panama Canal, but owing to crop and market conditions in Europe the demand this year for American wheat in the United Kingdom and Europe is comparatively weak, and this is reflected in Canal statistics. During the 4 months from July 1 to October 31, 1923, wheat shipments from the Pacific coast of the United States and Canada have totaled only 170,938 tons, as compared with 311,382 tons during the corresponding period in 1922 and 366,281 tons in 1921. While there are indications that a larger share of the Canadian wheat exports may be diverted this year to Vancouver and Panama from the Great Lakes and St. Lawrence River route, and tonnage is reported as chartered for comparatively heavy shipments out of Vancouver in December and January, it is improbable that the grand total for the season will approach the totals of the two previous years.

Barley shipments from the west coast of the United States have also been light. They totaled 121,292 tons for the 4 months from July to October, 1923, as compared with 191,855 tons in 1922 and 255,456 tons in 1921.

Record for Cargo in One Direction on One Day.

A new high record for cargo shipped through the Canal in one direction in one day was established November 14, when 110,329 tons made the transit from Pacific to Atlantic. Eleven[1] ships made the northbound transit; of these, one was in ballast and one a small schooner, with 115 tons of cargo. The 9 others carried 110,214 tons, averaging 12,246 tons. The details are as follows:

Ship.	Measurement tonnage.		Tolls.	Cargo.
	Panama Canal net.	Registered net.		
				Tons.
J. A. Moffett, Jr.	7,995	5,978	$7,501.25	15,000
J. C. Donnell	7,900	7,833	9,489.00	15,500
J. N. Pew	6,612	6,474	7,934.40	13,988
Theodore Roosevelt	5,637	4,493	5,636.25	9,300
Candidate	4,126	3,147	3,842.50	6,750
Charles Pratt	7,492	5,645	7,033.75	15,600
James McGee	7,909	5,920	7,387.50	14,927
France Maru	4,658	4,228	5,335.00	7,649
Swiftwind	5,997	5,092	4,317.84	Ballast
Atrato	77	85	83.75	115
John Worthington	6,096	5,934	6,466.25	11,500
Totals	64,499	54,829	65,018.49	110,329

On November 14 the commercial traffic from Atlantic to Pacific was 4 vessels; the total of 16 did not, accordingly, make a new record. The record to date is 25 vessels, passing through the Canal on May 25, 1923. Neither did the traffic on November 14 set a new record for tolls in one direction, as on May 25 the collections were: Atlantic to Pacific, $68,814.17; Pacific to Atlantic, $67,790.60; total, $136,604.77.

[1] In addition there was a Government transport not included in commercial traffic.

New Records for Quick Discharge of Tankers.

Two oil cargoes were recently discharged at Balboa in time which establishes new records for vessels at the Panama Canal pumping plants.

The Union Oil Company's tanker *Cathwood* arrived at Balboa on November 6, and began to discharge at 9.50 a. m. on November 7. The whole cargo of 74,734.65 barrels had been pumped out by 5 a. m. on November 8, in 19 hours and 10 minutes. Some time was lost on this job owing to the use of one line between 9.15 p. m. and 11 p. m. on November 7 for delivering 2,000 barrels of fuel oil to the steamship *Clausens* bound through the Canal from Baltimore to Honolulu.

The Pacific Mail Steamship Company's tanker *Solana* arrived at Balboa on November 13 at 12.40 p. m. and began to discharge at 4 o'clock on the same afternoon, delivering 68,103.60 barrels of fuel oil in 15 hours actual pumping time. Pumping was not completed until 1 p. m. on November 14, having been suspended temporarily at the request of the chief engineer of the ship. The best work was done between midnight and 3 a. m. on November 14, when 15,967 barrels were discharged, at the rate of 5,322.33 barrels an hour.

New Tank Placed in Service by Union Oil Company.

An additional oil tank of 80,074-barrels capacity, 42 feet high, has been completed at Balboa for the Union Oil Company of California and placed in service. This makes a total of 5 tanks for this company,

with an aggregate working capacity of 229,149 barrels. Included in this number is a tank of 37,160 barrels, used for Diesel oil.

With the addition of the new 80,000-barrel tank the total working capacity of the tanks for fuel, Diesel oil and gasoline at Balboa is now 842,287 barrels. That at Cristobal is 1,118,486 barrels, making the aggregate for the Canal plants 1,961,773 barrels.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended November 19:

Steamship *Cristobal*, make active rings for port and starboard M. P. engines; repair cargo hooks, hand rail, drain in mess room, and miscellaneous plumbing; continue calking of wood deck; complete scaling and cement washing fore peak tank; renew brackets of horizontal stiffner in deep tank and cement wash new work; enclose upper portion of purser's office, etc.; tugs *Lurline*, dock and clean bottom; install new shoe and renew copper sheathing where required; install two new propellers and rebush bearings; repair air compressor, wiring, gasoline pump, and main engines; clean out gas tanks, etc.; *Engineer*, make and install fuel oil tanks in forward and after hold and alterations necessary for conversion of tug to oil burning; barge *No. 117*, dock, scale, and paint bottom; test all tanks and repair leaks; repair ladders in tanks, deck plates, guard iron over hopper sheathing, hatch coamings, bitts, and foundations, cleats, and chocks, etc.; steamship *H. M. Flagler*, services of diver to examine bottom.

Minor repairs—Steamships *Mantaro*, *Suriname*, *Camden*, *Saramacca*, *Stuyvesant*, *Agwistone*, *and Ebro*; launches *Activo*, and *Mary B*; tugs *Favorite*, *Tavernilla*, and *Coco Solo*; U. S. A. M. P. *Nones*, and submarines *O–10*, *O–8*, and *O–6*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending November 17, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Magellan	Pacific Steam Navigation Co	November 4	November 4	6	
San Juan	Pacific Mail Steamship Co	November 5	November 6	95	
Tulsagas	U. S. Shipping Board	November 6	November 8	6,250	
Cathwood	Union Oil Co	November 6	November 8	10,000	
Argonne	U. S. Navy	November 6	November 8		3
Alvarado	Pacific Steam Navigation Co	November 7	November 7		7
Santa Ana	Grace Line	November 7	November 7		5
Atlas Maru	Osaka Shosen Kaisha	November 7	November 8	54	1
Western Scout	U. S. Army	November 8	November 10	248	49
Salvador	Pacific Steam Navigation Co	November 10	November 10		17
San Francisco	Johnson Line	November 6	November 7		357
Ansaldo San Giorgio II	Societa Nacionale de Navigazione	November 11	November 11	48	
Chaumont	U. S. Navy	November 12	November 13	1	
Grant	U. S. Army	November 12	November 14	60	
Brielle	Royal Netherlands W. I. Mail	November 12	November 12	247	
Laura C. Hall	Pacific Metals Corporation	November 13	November 14	12	
Amsterdam	Royal Netherlands W. I. Mail	November 14		88	
San Juan	Pacific Mail Steamship Co	November 15	November 15		7
Fredensbro	N. O. & S. A. S. S. Line	November 15	November 15	171	
Almagro	Pacific Steam Navigation Co	November 15	November 16	11	
Akera	Anglo-Saxon Petroleum Co	November 16	November 17	7,000	
Jamaica	Pacific Steam Navigation Co	November 17	November 17		3

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, October, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile	Colombia.	Ecuador.	Peru.	West coast of South America.	Total, South America.	West coast of United States.	West coast of Mexico.	West coast of Canada.	West coast of North America.	West coast of Central America	Balboa, C. Z.[2]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
N. Atlantic ports	13,772	728	310	2,008	12,307	29,125	175,257	30	369	1,030	1	....	176,687	29,373	10,456	21,924	36,359	98,112	2,295	30,239	7,831	40,365	1,001	345,290	55.5
Gulf ports	....	....	....	....	1,435	1,435	9,757	....	....	....	....	....	9,757	9,256	19,328	150	14,111	42,845	....	12,963	....	12,963	27	67,027	10.7
Totals, U. S.	13,772	728	310	2,008	13,742	30,560	185,014	30	369	1,030	1	....	186,444	38,629	29,784	22,074	50,470	140,957	2,295	43,202	7,831	53,328	1,028	412,317	66.2
E. coast of Mexico	51,467	....	....	....	....	51,467	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	51,467	8.3
Cristobal, C. Z.[2]	97	94	76	....	797	1,064	643	....	....	....	4,459	....	5,102	....	....	....	....	....	....	....	....	....	....	6,166	1.0
West Indies	....	....	....	....	....	....	2,366	....	....	....	....	....	2,366	....	....	....	....	....	....	....	....	....	....	2,366	0.4
E. coast of Canada	....	....	....	....	....	....	....	....	....	....	....	....	....	3,160	....	....	....	3,160	1,970	6,395	....	8,365	....	11,525	1.8
Totals, N. America	65,336	822	386	2,008	14,539	83,091	188,023	30	369	1,030	4,460	....	193,912	41,789	29,784	22,074	50,470	144,117	4,265	49,597	7,831	61,693	1,028	483,841	77.7
Europe:																									
Belgium	1,123	....	....	....	....	1,123	6,191	902	25	....	....	....	7,118	....	....	....	....	....	....	....	....	....	....	8,241	1.3
British Isles	17,847	....	111	2,721	2,832	23,511	1,540	....	4,878	6,106	....	....	12,524	....	....	....	....	....	29,804	....	11,362	41,166	....	77,201	12.4
France	590	....	2	....	....	592	3,238	....	20	....	....	....	3,258	....	....	....	....	....	....	....	....	....	....	3,850	0.6
Germany	5,373	....	....	323	7,563	13,259	3,741	....	....	....	....	....	3,741	....	....	....	....	....	....	....	....	....	....	17,000	2.7
Holland	....	....	....	....	....	....	415	....	....	....	....	....	415	....	....	....	....	....	....	....	....	....	....	415	....
Norway and Sweden	....	....	....	....	....	....	3,909	....	....	2,434	....	....	6,343	....	....	....	....	....	....	....	....	....	....	6,343	1.0
Spain	63	....	....	....	256	319	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	319	....
Europe[1]	540	....	....	....	13,176	13,716	1,900	....	....	....	....	460	2,360	....	....	....	....	....	....	....	....	....	....	16,076	2.6
Totals, Europe	25,536	....	113	3,044	23,827	52,520	20,934	902	4,923	8,540	....	460	35,759	....	....	....	....	....	29,804	....	11,362	41,166	....	129,445	20.8
E. coast of S. America	....	189	....	....	1,110	1,299	7,340	16	....	....	....	....	7,356	642	164	....	....	806	....	....	....	....	....	9,461	1.5
Grand totals	90,872	1,011	499	5,052	39,476	136,910	216,297	948	5,292	9,570	4,460	460	237,027	42,431	29,948	22,074	50,470	144,923	34,069	49,597	19,193	102,859	1,028	622,747	100.0
Per cent of total cargo:																									
October, 1923	14.6	0.2	....	0.8	6.4	22.0	34.8	0.1	0.9	1.5	0.7	....	38.0	6.8	4.8	3.6	8.1	23.3	5.5	7.9	3.1	16.5	0.2	....	100.0
October, 1922	8.6	0.4	0.2	2.3	8.4	19.9	38.8	0.1	0.9	4.0	0.6	....	44.4	7.7	3.6	....	8.2	19.5	3.8	4.2	7.3	15.3	0.9	....	100.0
October, 1921	6.1	0.3	0.2	1.9	2.4	10.9	31.8	....	4.4	....	2.2	....	38.4	23.8	9.0	0.4	2.1	35.5	9.9	2.7	2.5	15.1	0.1	....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, October, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[1]	Italy.	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	113,024	12,033	.....	125,057	.....	133	.....	186	125,376	20,279	100	.....	2,832	1,296	.....	7,686	24,962	....	57,155	.....	7,100	189,631	12.6
Colombia	246	.....	.....	246	.....	.....	.....	54	300	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	117	.....	417	.....
Ecuador	3,424	.....	.....	3,424	.....	.....	.....	1,293	4,717	243	.....	.....	532	89	.....	.....	349	....	1,213	.....	.....	5,930	0.4
Peru	18,791	.....	.....	18,791	.....	.....	.....	8,853	27,644	12,861	.....	.....	.....	389	.....	.....	.....	....	13,250	.....	.....	40,894	2.8
W. coast S. America[1]	1,964	.....	.....	1,964	.....	.....	.....	88	2,052	85	.....	.....	.....	128	.....	.....	1,367	....	1,580	.....	.....	3,632	0.2
Totals, S. America	137,449	12,033	.....	149,482	.....	133	.....	10,474	160,089	33,468	100	.....	3,364	1,902	.....	7,686	26,678	....	73,198	117	7,100	240,504	16.0
North America:																							
West coast of U. S.	800,665	4,534	164,792	969,991	.....	9,006	34,564	7,614	1,021,175	84,222	11,028	6,877	70	536	5,198	.....	24,049	....	131,980	3,096	.....	1,156,251	76.8
West coast of Canada	4,840	.....	.....	4,840	7,614	.....	.....	.....	12,454	5,360	.....	18	.....	.....	.....	.....	1,072	....	6,450	.....	.....	18,904	1.3
West coast, Cen. Am.	102	.....	.....	102	.....	85	.....	390	577	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	577	.....
West coast N. Am [1]	21,890	2,877	.....	24,767	.....	.....	.....	.....	24,767	4,579	.....	.....	350	.....	.....	.....	2,407	....	7,336	.....	.....	32,103	2.1
Hawaii	7,000	.....	.....	7,000	.....	.....	.....	.....	7,000	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	7,000	0.5
W. coast of Mexico	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,394	.....	....	8,394	.....	.....	8,394	0.6
Totals, N. America	834,497	7,411	164,792	1,006,700	7,614	9,091	34,564	8,004	1,065,973	94,161	11,028	6,895	420	536	5,198	8,394	27,528	....	154,160	3,096	.....	1,223,229	81.3
Asia:																							
China	3,991	.....	.....	3,991	.....	.....	.....	.....	3,991	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	3,991	0.3
Japan	2,162	.....	.....	2,162	.....	.....	.....	.....	2,162	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	2,162	0.1
Philippines	4,900	.....	.....	4,900	.....	.....	.....	.....	4,900	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	4,900	0.3
Far East [1]	4,905	.....	.....	4,905	.....	.....	.....	.....	4,905	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	4,905	0.3
Totals, Asia	15,958	.....	.....	15,958	.....	.....	.....	.....	15,958	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	15,958	1.0
Australasia:																							
Australia	1,040	.....	.....	1,040	1,018	.....	.....	.....	2,058	5,894	.....	.....	.....	.....	.....	.....	.....	....	5,894	.....	.....	7,952	0.5
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,649	.....	.....	.....	.....	.....	.....	.....	....	5,649	.....	.....	5,649	0.4
Australasia [1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,800	.....	3,728	.....	.....	.....	....	11,528	.....	.....	11,528	0.8
Totals, Australasia	1,040	.....	.....	1,040	1,018	.....	.....	.....	2,058	11,543	.....	7,800	.....	3,728	.....	.....	.....	....	23,071	.....	.....	25,129	1.7
Grand totals	988,944	19,444	164,792	1,173,180	8,632	9,224	34,564	18,478	1,244,078	139,172	11,128	14,695	3,784	6,166	5,198	16,080	54,206	....	250,429	3,213	7,100	1,504,820	100.0
Per cent of total cargo:																							
October, 1923	65.7	1.3	10.9	77.9	0.6	0.6	2.3	1.2	82.6	9.2	0.8	1.0	0.2	0.4	0.3	1.1	3.6	....	16.6	0.2	0.6	.....	100.0
October, 1922	41.8	5.6	2.4	49.8	1.6	2.2	.....	1.3	54.9	18.9	1.1	.....	1.4	0.7	.....	0.6	16.4	2.7	41.8	0.1	3.2	.....	100.0
October, 1921	28.9	0.3	0.4	29.6	0.1	0.8	0.8	2.4	33.7	33.2	0.5	3.4	2.0	5.3	1.1	1.2	17.0	1.0	64.7	.....	1.6	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 17, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ansaldo San Giorgio II [2]	10	15.23	11	6.10	11	17.30	11	22.09	Italian	Societa Nazionale de Navigazione	391.7	51.0	15.0	Genoa	Valparaiso	General	956	5,591	3,975
Deroche [1]	10	13.55	11	6.24	11	18.00	11	19.05	American	Union Oil Co	435.0	56.0	22.0	Baltimore	Los Angeles	Ballast		7,452	5,199
Gulfpoint [1]	10	20.40	11	7.25	11	18.59	13	14.07	American	Gulf Refining Co	435.0	56.0	20.0	New York	Los Angeles	Ballast		7,426	5,128
Willhilo	10	22.15	11	7.40	11	18.31	11	19.31	American	Williams Steamship Co	434.3	57.7	20.0	New York	Tacoma	([6])	4,990	7,983	5,882
Venice Maru	11	5.35	11	8.35	11	19.25	11	20.24	Japanese	Kawasaki Steamship Co	405.0	53.0	15.6	Philadelphia	San Francisco	Ballast		7,025	5,025
Kellerwald	11	8.10	11	9.35	11	19.50	11	21.04	German	Hamburg-American Line	398.3	53.11	20.0	Hamburg	Corral	General	1,884	6,545	4,483
Trevithick	11	8.40	11	10.53	11	20.20	11	21.55	British	Hain Steamship Co	469.8	58.0	26.3	Galveston	Geelong	General, sulphur	8,661	8,772	6,461
Shreveport [1]	11	11.55	11	12.05	11	20.36	11	22.09	American	Walker & Daly (S. B.)	435.0	56.0	21.0	Fall River	Los Angeles	Ballast		7,411	5,103
Sciota [3]			11	8.45	11	14.58			American	U. S. Navy	155.0	30.0		Cristobal	Balboa	Ballast			
Brielle	11	6.40	12	6.15	12	17.50	13	2.56	Dutch	Royal Netherlands W. I. Mail	402.6	58.3	25.0	Hamburg	Valparaiso	General	5,874	7,322	5,254
Florence Luckbach	11	20.20	12	6.25	12	18.28	12	19.42	American	Luckenbach Line	401.8	52.0	24.6	Mobile	Los Angeles	([7])	7,065	6,002	4,621
Vermont	11	14.18	12	9.50	12	19.10	12	20.37	French	French Line	403.0	52.0	25.0	Havre	Vancouver	General	6,050	5,822	4,187
Montrose	12	4.10	12	10.50	12	19.17	12	20.37	British	Australind Steamship Co	365.0	48.0	24.5	New Orleans	Sydney	General	4,796	4,680	3,441
O-10 [4]			12	9.35	12	18.25			American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
El Norte [5]			12	6.50	12	17.56	12	18.38	Panaman	Juan Hurtado				Cristobal	Balboa	Ballast		26	26
Santa Rosa	12	2.35	13	6.15	13	19.16	13	20.17	American	Grace Line	404.6	53.0	26.6	New York	Los Angeles	Steel pipes, gen.	7,860	6,754	4,780
Laura C. Hall [5]	15	19 29	13	6.08	13	13.58	14	7.37	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	Cement, steel	80	132	72
San Francisco	12	14.20	13	6.25	13	18.20	13	19.24	American	Isthmian Lines	405.0	52.0	26.10	New York	Seattle	General	7,500	6,186	4,449
Volumnia	12	14.25	13	7.25	13	19.24	13	20.25	British	Volumnia Steamship Co	423.6	56.0	16.0	Cardiff	Portland	Ballast		6,229	4,524
Kaikoura	12	18.55	13	7.47	13	18.28	13	19.30	British	New Zealand Shipping Co	460.0	58.0	24.6	London	Dunedin	([8])	3,277	9,057	6,438
George Allen	13	0.50	13	8.30	13	20.16	13	23.47	American	Garland Steamship Co	385.3	51.2	26.0	Baltimore	Seattle	General	7,808	6,224	4,465
Katrina Luckenbach	13	2 55	13	8.43	13	20.08	13	21.12	American	Luckenbach Line	468.3	55.11	30.0	New Orleans	Seattle	General	8,121	8,508	6,179
Albert Jeffress	13	3.10	13	9.45	13	20.54	13	22.06	American	Garland Line	384 6	51.0	17.0	Baltimore	Seattle	General	1,800	6,347	4,453
Delaware Sun [1]	13	7.00	13	9.50	13	21.00	13	22.06	American	Sun Oil Co	480.5	66.0	22.0	Chester	San Pedro	Ballast		9,402	6,586
Argon [1]	13	9.05	13	10.52	13	21.51	13	23.03	American	Standard Transportation Co	435.0	56.0	19.10	New York	San Pedro	Ballast		7,386	5,183
Dusseldorf	13	9.45	13	12.17	13	22.00	13	23.11	German	Kosmos Line	407.0	55.9	19.0	Bremen	Guayaquil	General	2,000	6,629	4,519
Amsterdam	13	11.25	14	6.15	14	17.59			Dutch	Royal Netherlands W. I. Mail	494.0	65.6	22.6	Amsterdam	Valparaiso	General	4,000	11,647	8,217
Harry Luckenbach	14	4.50	14	7.30	14	18.18	14	19.30	American	Luckenbach Line	448.9	60.2	23.6	New York	Seattle	General	5,683	9,262	6,853
Kendal Castle	14	7.45	14	10.45	14	19.46	14	20.58	British	Lancashire Shipping Co	418.0	57.0	25.8	New York	Shanghai	General	8,100	6,773	4,973
Trefusis	14	11.20	14	11.45	14	19.51	14	21.03	British	Hain Steamship Co	400.0	52.0	20.0	Montreal	Auckland	General	6,686	5,810	4,096
City of Cambridge	14	16.00	15	6.19	15	17.59	15	19.01	British	Ellerman City Line	454.3	58.3	28.3	New York	Shanghai	General	9,460	9,183	6,954
Pennsylvania Sun [1]	15	7.37	15	7.45	15	17.28	15	18.18	American	Sun Oil Co	480.5	66.0	22.0	New York	Los Angeles	Ballast		9,325	6,383

[1] Tanker. [2] Motor ship. [3] Tug. [4] Submarine. [5] Motor schooner. [6] Fertilizer, machinery, steel, and general. [7] Pipe fittings and general. [8] Automobiles, ease oil, motor spirit, and general.

William Green [1]	15	8.20	15	8.40	15	18.24	15	19.16	American	Pan-American Petroleum Co	430.0	58.2	19.0	Boston	Los Angeles	Ballast		6,973	4,670
San Juan	6	19.35	15	11.45	15	19.15	16	0.04	American	Pacific Mail Steamship Co	283.0	37.0	17.10	Cristobal	San Francisco	General	1,816	2,379	1,593
Fredensbro	15	1.45	15	12.00	15	19.21	16	17.52	Danish	A. S. det Oversoeisks	302.0	44.2	17.0	New Orleans	Valparaiso	General	1,483	2,997	2,113
America [9]			15		15	8.19			American	J. H. Stilson				Cristobal	Gatun Lake	Ballast		6	6
Kentuckian	16	0.30	16	6.35	16	13.24	16	14.47	American	American-Hawaiian Line	415.0	54.0	20.1	Boston	Portland	General	3,159	7,049	4,941
Imlay [1]	16	0.55	16	6.38	16	14.16	16	15.34	American	Malston Co	425.0	57.0	20.0	Baton Rouge	San Pedro	Ballast		7,218	4,959
Suportco	16	5.05	16	7.45	16	15.55	16	17.04	American	Transmarine Corporation	324.0	46.2	22.0	Newark	Portland	General	4,800	5,984	2,612
Cold Harbor	16	7.50	16	8.12	16	16.16	16	17.37	American	Nawsco Lines (S. B.)	390.0	54.0	17.6	Philadelphia	Seattle	General	1,650	6,167	4,290
Vacuum [1]	16	9.52	16	10.00	16	17.03	16	17.52	American	Vacuum Oil Co	425.0	57.0	23.0	Philadelphia	San Pedro	Ballast		7,473	5,034
Vinita	16	12.35	16	12.45	16	19.19	17	0.04	American	Sudden & Christensen	410.0	54.0	18.0	New York	Seattle	General	3,295	6,572	4,910
Buenos Aires	16	7.10	17	6.10	17	14.00	17	15.06	Spanish	Spanish Line	410.6	48.2	21.6	Buenos Aires	Valparaiso	General	208	5,624	3,844
Oroya	16	8.35	17	6.08	17	15.18	17	16.20	British	Pacific Steam Navigation Co	525.3	62.6	26.6	Liverpool	Valparaiso	General	3,982	13,313	9,064
Mexican	16	21.30	17	7.40	17	15.47	17	19.49	American	American-Hawaiian Line	472.3	57.2	23.6	Baltimore	Seattle	General	4,926	9,258	6,874
Hoxbar [1]	17	3.05	17	7.35	17	16.25	17	16.40	American	McAllister Brothers (S. B.)	435.0	56.0	21.0	New York	San Pedro	Ballast		7,421	5,174
Pearl Shell [1]	17	6.25	17	8.45	17	17.05	17	21.54	American	Pearl Shell Steamship Co	411.0	53.0	20.0	London	San Francisco	Ballast			
Sandon Hall	17	6.40	17	9.32	17	17.40	18	1.55	British	Ellerman Hall Line	406.0	52.0	27.0	Galveston	Yokohama	General	6,905	6,691	4,931
Port Augusta	16	11.22	17	10.35	17	18.46	17	19.48	British	Commonwealth & Dom. Line	380.6	49.1	22.3	Liverpool	Freemantle	General	2,560	5,192	3,854
Jamaica	8–13	16.00	17	11.05	17	20.22	17	22.24	British	Pacific Steam Navigation Co	220.0	34.0	11.3	Cristobal	Buenaventura	General	233	1,187	622
Scopas [1]	17	6.42	17	11.00	17	19.28	18	7.39	Dutch	La Corona Steamship Co	412.0	53.0	17.6	Rotterdam	San Pedro	Ballast			
Canadian Miller	17	11.40	17	13.40	17	21.31	18	10.38	British	Canadian Govt. Mer. Marine	399.0	52.1	21.8	Montreal	Auckland	General	3,850	5,892	4,186

[1] Tanker. [9] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Samuel Q. Brown [1]	10	14.40	11	6.35	11	18.55	11	18.55	American	Tidewater Oil Co	424.4	58.2	26.0	San Pedro	Fall River	Crude oil	10,000	7,333	5,246
Elmpark	10	12.45	11	6.49	11	18.27	11	18.27	British	J. and J. Denholm, Ltd	409.0	53.5	26.0	Vancouver	United Kg'dm	Wheat	7,374	6,565	4,728
Suduffco	10	17.00	11	7.56	11	22.30	11	22.30	American	Transmarine Corporation	324.0	46.2	22.9	Raymond	New York	([11])	2,898	3,984	2,612
E. L. Doheny III [1]	11	1.00	11	8.10	11	19.35	11	19.35	American	Huasteca Petroleum Co	467.6	62.0	28.6	San Pedro	New Orleans	Crude oil	13,145	9,666	7,034
Rubens	11	4.30	11	8.26	11	21.25	11	23.00	British	Bolton Steam Shipping Co	360.0	50.2	22.6	Junin	Alexandria	Nitrate	5,916	4,467	3,278
Paul Luckenbach	11	7.50	11	8.45	11	20.10	11	20.10	American	Luckenbach Line	471.1	59.2	24.6	Portland	Philadelphia	General	7,500	9,027	6,539
Emidio [1]	11	9.45	11	10.37	11	21.15	12	5.35	American	General Petroleum Corporation	435.0	56.2	28.0	San Pedro	Thameshaven	Gasoline	7,900	7,433	5,058
W. S. Rheem [1]	11	10.45	11	11.55	11	22.10	11	22 10	American	Standard Oil Co. of California	500.0	68.2	29.8	Los Angeles	New York	Crude oil	14,878	11,224	7,860
Bessemer City	11	14.00	12	6.31	12	18.48	12	18.48	American	Isthmian Steamship Lines	424.2	56.2	26.0	Seattle	Liverpool	General	8,100	7,611	5,450
Agwimex [1]	11	15.30	12	6.56	12	19.08	12	19.08	American	Ward Line	480.5	56.0	29.6	San Pedro	Baltimore	Crude oil	13,400	9,394	6,306
San Gregorio [1]	12	0.30	12	7.56	12	20.10	12	20.10	British	Anglo-Mexican Petroleum Co	527.0	66.6	28.7	San Pedro	Tampico	Crude oil	15,479	12,136	9,042
Mari	12	7.30	12	10.16	12	22.03	12	7.20	Peruvian	Cia Naviera "Amaya"	350.4	50.15	21.0	Mejillones	Norfolk, Va	Nitrate of soda	5,853	4,346	3,084
Santa Luisa	12	10.15	12	11.54	12	20.50	12	23.38	American	Grace Line	360.2	51.6	24.6	Talcahuano	New York	([12])	3,956	5,694	3,975
Hessen	12	1.15	12	12.40	12	21.28	13	0.10	German	Hamburg-American Line	488.0	58.0	28.0	Seattle	London	General	9,026	9,568	6,680
Chaumont [10]	12	7.30	13	6.44	13	14.33	13	1.05	American	U. S. Navy	448.0	58.2	23.0	San Francisco	New York	Gen. Navy cargo	798		
Naples Maru	12	16.45	13	6.49	13	20.45	13	22.10	Japan	Kokusai Kisen Kabushika Kaisha	385.0	51.0	26.0	Portland	Gibraltar	Wheat	7,700	6,207	4,670
Huguenot [1]	12	13.05	13	7.27	13	19.15	13	19.15	American	McAllister Bros. (S. B.)	434.8	56.2	27.6	Los Angeles	New York	Crude oil	10,000	7,394	5,099
Hanley	12	20.30	13	7.30	13	19.27	13	19.27	American	United American Line	440.0	56.0	25.6	Everett	New York	Lumber, copper	9,832	8,301	5,995
Halsey [1]	13	6.18	13	8.26	13	20.54	13	20.54	American	C. D. Mallory & Co	435.0	56.0	22.10	San Pedro	New York	Crude oil	10,575	7,642	5,324
Walter Jennings [1]	13	8.20	13	9.11	13	22.10	13	22.18	American	Standard Oil Co. of N. J	499.2	68.1	20.6	San Pedro	New York	Crude oil	16,000	11,037	7,995

[1] Tanker. [10] U. S. Army transport. [11] Lumber, copper, tires, general. [12] Copper, sugar, cotton, wool, etc.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Elisha Walker [1]	13	10.00	13	10.46	13	22.30	13	22.30	American	Pan-Amer. Pet. & Transp. Co	429.3	59.2	28.0	San Pedro	New Orleans	Crude oil	11,280	7,978	5,971
Grant [13]	11	22.58	14	6.33	14	13.05	14	13.05	American	War Department, U. S. Army	598.2	55.3	26.0	San Francisco	New York	General	578		
France Maru	13	13.00	14	6.34	14	19.05	14	19.05	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.7	Vancouver	Fayal	Wheat	7,649	6,209	4,658
Swiftwind [1]	13	13.45	14	7 24	14	18.30	14	18.30	American	C. D. Mallory & Co	464.6	60.2	20.0	Tocopilla	Tampico	Ballast		8,473	5,997
J. A. Moffett, Jr. [1]	13	18.15	14	7.56	14	20.40	14	20.40	American	Standard Oil Co. of N. J.	499.2	68.1	29.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
J. N. Pew [1]	13	18.45	14	8 12	14	19.43	14	19.43	American	Sun Oil Co	480.5	66.0	27.8	San Pedro	Philadelphia	Crude oil	13,988	9,494	6,612
J. C. Donnell [1]	13	18.15	14	8 46	14	21.02	14	21.02	American	Atlantic Refining Co	500.0	68 2	28.0	San Pedro	Philadelphia	Crude oil	15,500	10,435	7,900
Candidate	14	3 30	14	9.05	14	21 30	14	22.10	British	Harrison Line	400.0	52.0	24.8	Seattle	London	General	6,750	5,677	4,126
Charles Pratt [1]	14	6.20	14	9.49	14	22.25	15	1 15	American	Standard Oil Co. of N. J.	500.0	68.0	29.8	San Pedro	New York	Crude oil	15,600	10,313	7,492
James McGee [1]	14	9.30	14	10.40	14	22.55	14	22 56	American	Standard Oil Co. of N. J.	499.1	68.2	28.7	San Pedro	New York	Crude oil	14,926	10,964	7,909
Theodore Roosevelt	14	1.40	14	12.52	15	0.10	15	0 10	Norwegian	Norway-Pacific Line	450.0	55.0	28 8	Vancouver	Bergen	Wheat	9,300	7,593	5,637
Atrato [14]	14	9.20	14	12.54	14	23.45			Colombian	Colombia Transport Co	94.2	24.0	7.5	Buenaventura	Cristobal [15]	General	115	160	77
John Worthington [1]	14	11.45	14	12.52	14	23.28	14	23.28	American	Standard Oil Co. of N. J.	462.4	60.0	28.0	San Pedro	New York	Crude oil	11,500	8,491	6,096
Texan	14	14.43	15	6.29	15	18.54	15	18.54	American	American-Hawaiian Line	471.0	57.2	22.0	Seattle	Boston	General	6,011	9,154	6,903
Cape Cod [1]	14	20.25	15	7.35	15	19.29	15	19.29	American	Cape Code Steamship Co	425.6	57.0	29.0	Los Angeles	Bayonne	Crude oil	9,772	7,218	4,955
Clement Smith [1]	14	18.25	15	7.46	15	20.04	15	20.04	American	Oil Transport Co	431.0	59.2	27.0	Los Angeles	Fall River	Crude oil	10,925	8,097	5,532
Dixie Arrow [1]	15	7.15	15	8.34	15	20.35	15	20.35	American	Standard Transportation Co	468.3	62.7	28.0	Los Angeles	Providence	Crude oil	12,103	9,744	7,140
Elder Branch	15	10.20	15	11.09	15	21.25	16	6.39	British	Nautilus Steamship Co	380.0	49.7	22 8	Valparaiso	Liverpool	General	6,089	4,951	3,592
Antietam [1]	14	13.00	15	11.54	15	21.48	15	21.48	American	Chas. Kury Co., Inc	435.6	56.2	29.6	San Pedro	Bayonne	Crude oil	10,181	7,426	5,094
Orinico	15	12.03	15	13.23	15	19.15	15	22 15	American	Oriental Navigation Co	376.4	52.3	23.0	Port Angeles	Norfolk	General	5,200	5,455	3,902
Almagro	15	14.15	16	6 31	16	14.10	17	21 50	British	Pacific Steam Navigation Co	303.4	43.0	18.6	Guayaquil	New York	General	1,274	2,878	1,714
Albion Star	15	14 45	16	7.36	16	15.13	16	15.13	British	Blue Star Line, Ltd	450.0	58 5	26.0	Tacoma	United Kg'dm.	Fruits	6,778	8,317	5,531
John D. Archbold [1]	16	0.01	16	8.31	16	16.47	16	16.47	American	Standard Oil Co. of N. J	554.9	75.3	31.6	San Pedro	New York	Crude oil	20,000	14,785	10,313
Cerro Azul [1]	16	2 30	16	9.19	16	17.00	16	17 00	American	Pan-Amer. Pet. & Transp. Co	480.5	66.0	27.6	San Pedro	New Orleans	Crude oil	12,000	9,398	6,453
Balboa	16	8.45	16	10.05	16	18.20	18	10.00	Colombian	Cia. Costanera Colombiana	190.0	29 1	14.8	Tumaco	Cristobal	(16)	544	737	335
Sidney M. Hauptman	17	3.00	17	7.47	17	16.00	17	16.00	American	Munson-McCormack Line	401 4	53.2	25.0	Seattle	Baltimore	General, lumber	6,500	7,082	5,167
Wm. Rockefeller [1]	17	5.00	17	8.11	17	17.40	17	17.40	American	Standard Oil Co. of N. J.	554.9	75.3	31.6	San Pedro	New York	Crude oil	19,730	14,785	10,313
Calgarolite [1]	17	3.00	17	11.00	17	18.47	17	18.47	British	Imperial Oil Co., Ltd	463.3	60.2	25.0	Iquique, Chile	Baltimore	Crude naphtha	10,800	8,491	6,091
Surailco	17	10.40	17	11.49	17	19.21	17	19.21	American	Transmarine Steamship Co	324.0	46.2	20.0	Seattle	Port Newark	Lumber, general	3,100	3,984	2,612
Lio [1]	17	11.36	17	12.32	17	21.05	18	1.25	American	McAllister Bros. (S. B.)	430.0	59.2	25.6	San Pedro	Marcus Hook	Gasoline	9,300	7,862	5,177
Agwisun [1]	17	12.16	17	13.15	17	21.49	17	21.49	American	Ward Line	429.0	59.0	27.6	San Pedro	Baltimore	Crude oil	10,000	7,612	5,305

[1] Tanker. [13] U. S. Army transport. [14] Motor ship. [15] For orders. [16] Coffee, ivory nuts, hides, general. Hours are expressed on the 24-hour basis and all hours greater 12 than are postmeridian.

(Continued on page 224, column 2.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending November 17, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Atenas	United Fruit Co	November 4	November 5	411	148
Gen. G. W. Goethals	Panama Railroad Steamship Line	November 4	November 5	429	24
Mantaro	Peruvian Line	November 4		3,184½	
Flandre	French Line	November 4		91	
Saint Louis	French Line	November 4	November 5	105	(5)
Balboa	Compania Costanera Colombia		November 6		32
Magellan	Pacific Steam Navigation Co	November 4	November 4	6¾	(5)
Ulua	United Fruit Co	November 4	November 4	16	88
Salvador	Pacific Steam Navigation Co	November 4	November 10	17	1,098
Bolivian	Leyland Line	November 4	November 5	823	266
San Juan	Pacific Mail Steamship Co	November 6		190	
Jadden	Tampa Interocean Line	November 6	November 7	156	(5)
Toloa	United Fruit Co	November 6	November 7	169	68
Alvarado	Pacific Steam Navigation Co	November 6	November 7	363	247
Suriname	United Fruit Co	November 7	November 8	701	124
Cartago	United Fruit Co	November 7	November 7	(2)	3
Tivives	United Fruit Co	November 7	November 8	136	76
Camden	United Fruit Co	November 7		9,036	
Panama [1]	Danish East Asiatic Co	November 7	November 7	92	(5)
San Bruno	United Fruit Co	November 7	November 8	4	235
Panama	Panama Railroad Steamship Line		November 9		3,890
Aconcagua	Chilean Line	November 9	November 10	5½	(5)
Ansaldo San Giorgio	Societa Nazionale di Navigazione	November 10		57	
Toloa	United Fruit Co	November 11	November 11	59	97
Vermont	French Line	November 11	November 12	29	111
Brielle	Royal Netherlands W. I. Mail Co	November 11	November 12	255	4
Zacapa	United Fruit Co	November 11	November 12	295	322
Favorite	The Panama Canal	November 11		[3] 20	
Santa Rosa	Grace Line	November 12	November 13	288	650
Santa Luisa	Grace Line	November 12	November 12	3	(5)
San Blas	United Fruit Co	November 13	November 14	14	(5)
Amsterdam	Royal Netherlands W. I. Mail Co	November 13	November 14	161	(5)
Calamares	United Fruit Co	November 13	November 14	160	118
Cristobal	Panama Railroad Steamship Line	November 13		2,522	
Saramacca	United Fruit Co	November 13	November 15	555	(5)
Metapan	United Fruit Co	November 14	November 15	137	79
San Juan	Pacific Mail Steamship Co		November 15		2,022
Stuyvesant	Royal Netherlands W. I. Mail Co	November 14	November 15	302	10
Elder Branch	Nautilus Steamship Co	November 15	November 15	20	(5)
Fredensboro	N. O. & S. A. S. S. Line	November 15	November 15	12½	172
Zacapa	United Fruit Co	November 15	November 15	(2)	4
Tivives	United Fruit Co	November 15	November 15	(4)	55
H. M. Flagler	Standard Oil Co. of N. J.	November 16		10,902	
Buenos Aires	Spanish Line	November 16	November 17	192	(5)
Balboa	Compania Costanera Colombia	November 16		544	
Oroya	Pacific Steam Navigation Co	November 16	November 17	98	489
Almagro	Pacific Steam Navigation Co	November 16	November 16	974	(5)
Jamaica	Pacific Steam Navigation Co		November 17		233
Stuyvesant	Royal Netherlands W. I. Mail Co	Novemi er 17	November 17	(2)	342
Perou	French Line	November 17		30	

[1] Motorship. [2] No cargo discharged. [3] Cargo of ex *San Gil*. [4] 36 packages. [5] No cargo laded.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.50 to $1.65 per barrel at Cristobal, and $1.50 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2.00 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20

Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.

6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 222.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
November 11	Zacapa	United Fruit Co	New Orleans via Habana.
November 11	Toloa	United Fruit Co	Port Limon.
November 13	Calmares	United Fruit Co	New York via Habana.
November 13	San Blas	United Fruit Co	Boston via Habana.
November 13	Saramacca	United Fruit Co	New Orleans via Habana.
November 13	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
November 14	Stuyvesant	Royal Netherlands W. I. Mail Co	Amsterdam via way ports.
November 14	Metapan	United Fruit Co	New York via Kingston.
November 15	Tivives	United Fruit Co	Colombian ports.
November 15	Zacapa	United Fruit Co	Bocas del Toro.
November 17	Peron	French Line	St. Nazaire via way ports.
November 17	Stuyvesant	Royal Netherlands W. I. Mail Co.	Port Limon.

[7] Transport.

*DEPARTURES.

Date.	Vessel.	Line.	For—
November 11	Toloa	United Fruit Co	New York via Habana.
November 12	St. Mihiel [7]	U. S. Army	New York.
November 12	Zacapa	United Fruit Co	Bocas del Toro.
November 14	San Blas	United Fruit Co	Boston via Port Limon.
November 14	Calamares	United Fruit Co	Port Limon.
November 15	Saramacca	United Fruit Co	New Orleans via wayports.
November 15	Metapan	United Fruit Co	Colombian ports.
November 15	Tivives	United Fruit Co	New York and Kingston.
November 15	Zacapa	United Fruit Co	New Orleans.
November 15	Stuyvesant	Royal Netherlands W. I. Mail Co	Port Limon.

PORT OF BALBOA.

*ARRIVALS.

Date.	Vessel.	Line.	From—
November 13	Solana [1]	Pacific Mail Steamship Co	San Pedro.
November 16	Akera [1]	Anglo-Saxon Petroleum Co.	San Pedro.
November 17	Ginyo Maru	Toyo Kisen Kaisha	Hong Kong.

*DEPARTURES.

Date.	Vessel.	Line.	For—
November 14	Solana [1]	Pacific Mail Steamship Co	San Pedro.
November 17	Akera [1]	Anglo-Saxon Petroleum Co	San Pedro.

[1] Tanker.

* Other than ships passing through the Canal.

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Certificate—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., November 28, 1923. No. 16.

Shipments of Bananas from Gatun Lake Area.

The development of banana plantations on the shores of Gatun Lake has been one of the most interesting incidents in the recent history of the Isthmus. At the beginning of the year 1922 the Panama Railroad Steamship Line was the only transportation company handling banana shipments out of Cristobal, and the exports amounted to eight or nine thousand bunches a month. The United Fruit Company entered the field in April, 1922, and is now dispatching two shipments a week, to New York and Boston alternately. The Royal Mail Steam Packet Company and its allied lines began to handle bananas to New York and Los Angeles in May, 1922, Shipments from Cristobal are now running close to 45,000 bunches a month, worth to the planters approximately $22,500.

The following is a statement of the number of bunches handled by the three lines mentioned from January, 1922, to October, 1923:

Month.	1922.	1923.
January	8,217	17,087
February	9,117	11,304
March	11,631	24,435
April	17,223	21,693
May	23,480	31,185
June	19,012	39,333
July	18,051	33,852
August	17,818	45,734
September	17,208	44,593
October	20,319	44,986
November	19,287	.....
December	26,785	.....
Totals	208,688	314,202

Until recently all bananas exported from the Gatun Lake region were shipped via the Panama Railroad from Gamboa, Frijoles, Monte Lirio, or Gatun, but bananas are now being forwarded to Cristobal in some instances by water through the Gatun Locks. During the month of October, 16 small craft ranging from launches of one ton or less measurement to a motor schooner of 69 tons transited the Gatun Locks, engaged in carrying bananas from the Gatun Lake region to Cristobal.

Further Movement of Slide of October 28.

On the afternoon of November 22 there was a further movement between stations 1730 and 1738 of the slide on the west bank of the Gaillard Cut which originated on October 28. There was no interruption of traffic, but to avoid interference with the work of the two dipper dredges engaged in clearing the channel it was necessary for several days to return to the practice of holding vessels on either side of the obstruction until about 2 o'clock in the afternoon and then pass them through in groups.

CANAL WORK IN OCTOBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of October, 1923:

BALBOA HEIGHTS, C. Z., November 19, 1923.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of October, 1923:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 427, averaging 13.77 per day. In addition to commercial transits, there were 20 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 23 transits of Government vessels on which no tolls were paid, making the total transits for the month 470, or an average of 15.16 transits per day.

Tolls for the month aggregated $1,988,607.69 on the 427 commercial vessels and $88.80 on the 20 launches, making a total of $1,988,696.49, or an average of $64,151.50 per day. In addition to above tolls there was also collected $215.28 against a vessel which transited the Canal in June. This $215.28 is not included in any of the figures that follow in this report.

The daily average of commercial transits, 13.77, was the same as in September. In August, 1923, the daily average was 14.65 commercial ships.

The total number of vessels and craft of all kinds transiting the Canal during the month of October, 1923, as compared with October, 1922, and October, 1921, is shown in the following table:

	October, 1923.	October, 1922.	October, 1921.
Commercial vessels	427	294	255
Noncommercial vessels, Army and Navy	23	5	20
Launches (under 20 tons measurement)	20	20	6
Total vessels and craft through Canal	470	319	281

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	11	11	22
Pedro Miguel	28	32	60
Miraflores	24	25	49

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month to the end of October during the calendar years 1922 and 1923:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January	210	352	846,516	1,610,692	807,298	1,591,932	$847,767.55	$1,505,285.55
February	212	326	886,535	1,529,547	838,074	1,563,278	886,266.18	1,423,954.21
March	234	409	975,811	1,988,192	960,089	1,940,928	956,726.76	1,827,718.44
April	230	404	974,833	2,037,690	1,046,047	2,187,145	953,256.11	1,878,938.15
May	243	419	1,032,816	2,128,414	1,158,507	2,265,083	1,015,057.37	1,972,216.04
June	228	417	970,713	2,035,902	977,478	2,096,446	932,290.42	1,898,259.08
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	1,094,127.42	2,124,830.02
August	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
Totals	2,399	4,095	10,280,030	20,027,081	10,748,594	2,0447,616	10,016,401.11	18,572,929.76

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 10 months of the present calendar year over the corresponding period of the past calendar year has been 68.38 per cent in point of number of vessels, 95.05 per cent in Panama Canal net tonnage, 90.23 per cent in cargo tonnage, and 85.42 per cent in tolls.

The following is a summary of the commercial traffic in October, 1923, as compared with the corresponding month in 1922 and 1921 and the average month's traffic for the fiscal year which ended June 30, 1923:

	October, 1923.	October, 1922.	October, 1921.	Average per month for fiscal year 1923.
Number of vessels	427	294	255	331
U. S. equivalent tonnage	1,724,995	1,049,256	866,196	1,247,208
Panama Canal net tonnage	2,139,475	1,310,392	1,069,554	1,550,482
Registered gross tonnage	2,744,385	1,652,435	1,335,812	1,969,412
Registered net tonnage	1,720,836	1,042,966	863,676	1,240,808
Tolls	$1,988,607.69	$1,255,508.00	$1,047,935.62	$1,459,016.63
Tons of cargo carried	2,127,567	1,445,863	985,775	1,630,656

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day of fiscal year 1923.
	October, 1923.	October, 1922.	October, 1921.	
Number of transits	13.77	9.48	8.22	10.87
Panama Canal net tonnage	69,015	41,948	34,502	50,975
Tolls	$64,148.63	$40,500.26	$33,804.37	$47,967.67
Tons of cargo carried	68,631	46,641	31,799	53,611

From the foregoing it will be seen that the traffic in October, 1923, as compared with October, 1922, increased as follows: Number of commercial transits, 45.24 per cent; Panama Canal net tonnage, 64.52 per cent; tolls, 58.39 per cent; and cargo, 47.15 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls and cargo per vessel transiting the Canal during the month of October, 1923, as compared with the corresponding month in the years 1922 and 1921, are shown in the following tabulation:

	Average per vessel.		
	October, 1923.	October, 1922.	October, 1921.
United States equivalent tonnage	4,039	3,593	3,397
Panama Canal net tonnage	5,010	4,453	4,194
Registered gross tonnage	6,427	5,658	5,238
Registered net tonnage	4,030	3,572	3,387
Tolls	$4,657.16	$4,270.43	$4,109.55
Tons of cargo (including vessels in ballast)	4,982	4,951	3,866
Tons of cargo (laden vessels only)	6,408	5,497	4,694

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of October for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
October, 1920	13	51,477	44,659	7	34,438	34,426	20	85,915	79,085
October, 1921	22	113,712	86,442	19	96,731	105,951	41	210,443	192,393
October, 1922	44	218,319	176,911	29	156,722	235,728	73	375,041	412,639
October, 1923	109	617,389	187,533	104	576,366	963,778	213	1,193,755	1,151,311

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-six vessels of the United States Shipping Board transited the Canal during the month of October, 1923; of these 15 were employed in the United States intercoastal trade. Ten of the 26 vessels were tankers and 16 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of October for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net. tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
October, 1921..	10	55,300	34,593	14	61,980	79,129	24	117,280	113,722
October, 1922..	6	30,872	29,742	6	27,656	39,240	12	58,528	68,982
October, 1923 .	16	84,984	53,721	10	53,958	73,239	26	138,942	126,960

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of October, 1923, by principal geographical areas, as compared with October, 1922 and October, 1921; the figures represent the net tonnage as determined by The Panama Canal rules of measurement:

Areas.	October, 1923.	October, 1922.	October, 1921.
Origin, Pacific-bound tonnage.			
East coast of United States	836,200	433,864	262,440
Europe (including British Isles)	250,364	196,618	226,431
East coast of Mexico	34,082	14,170	27,828
Cristobal, C. Z.	7,648	19,665	20 516
Miscellaneous	50,445	48,135	33,960
Totals	1,178,739	712,452	571,175
Destination, Pacific-bound tonnage.			
West coast of United States	738,752	281,857	280,483
West coast of South America	169,799	194,282	78,532
Far East	98,482	106,467	100,332
Australasia	125,734	82,250	69,057
West coast of Canada	33,765	.....	.....
West coast of Mexico and Central America	1,441	.....	.....
Miscellaneous	10,766	47,596	42,771
Totals	1,178,739	712,452	571,175
Origin, Atlantic-bound tonnage.			
West coast of United States	683,141	287,606	252,645
West coast of South America	152,242	201,071	124,560
Australasia	23,860	8,022	41,436
Far East	16,661	20,232	37,720
West coast of Canada	57,214	.....	.....
West coast of Mexico and Central America	7,253	.....	.....
Miscellaneous	20,365	81,009	42,018
Totals	960,736	597,940	498,379
Destination, Atlantic-bound tonnage.			
East coast of United States	713,237	278,764	170,189
Europe (including British Isles)	176,397	246,239	259,613
East coast of Mexico	21,866	9,346	18,222
Cristobal, C. Z.	17,260	15,667	30,955
East coast of South America	8,778	.....	.....
Miscellaneous	23,198	47,924	19,400
Totals	960,736	597,940	498,379

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of October, 1923, was $1,988,607.69. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively throughout as a basis for collecting tolls this revenue would have been $2,328,931.92, a difference of $340,324.23. This difference is distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$49,207.65	$25,781.44	$74,989.09
Chilean	1,526.65	1,257.65	2,784.30
Danish	.....	4,366.20	4,366.20
Dutch	2,557.70	7,985.50	10,543.20
French	1,069.70	.....	1,069.70
German	8,040.35	3,117.95	11,158.30
Japanese	4,727.55	3,345.05	8,072.60
Jugo-Slavic	1,186.85	1,416.90	2,693.75
Norwegian	1,914.70	434.05	2,348.75
Panaman	[1] 12.48	.....	[1] 12.48
Peruvian	3,015.25	4,673.95	7,689.20
Spanish	1,471.60	2,423.70	3,895.30
Swedish	1,856.25	203.55	2,059.80
United States	64,017.17	143,591.80	207,608.97
Italian	1,147.55	.....	1,147.55
Totals	141,726.49	198,597.74	340,324.23

[1] Indicates gain.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$32,752.01	$119,199.85	$151,951.86
United States foreign trade	30,712.58	24,391.95	55,104.53
United States to Canal Zone trade	552.58	.....	552.58
Totals	64,017.17	143,591.80	207,608.97

Of the additional $340,324.23 tolls that would have been assessed by using exclusively the Panama Canal rules of measurement, $15,686.04 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in October, 1923, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, October, 1923.
British	.93	1.39	1.11
Chilean	.33	1.14	.67
Colombian	1.42	.51	.97
Danish	.....	1.68	1.68
Dutch	.85	1.32	1.14
Finnish	.....	1.04	1.04
French	.47	1.43	.68
German	.79	1.41	99
Italian	.13	.....	.13
Japanese	1.22	1.02	1.14
Jugo-Slavic	1.52	1.84	1.68
Norwegian	1.23	1.65	1.26
Panaman	.87	.....	.87
Peruvian	.14	1.23	.89
Spanish	.05	.96	.62
Swedish	1.28	1.60	1.37
United States	1.01	1.66	1.48
Average ratio, October, 1923	.95	1.58	1.32
Average ratio, October, 1922	1.00	1.48	1.25
Average ratio, October, 1921	.90	1.29	1.15

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being inlcuded:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.30	1.67	.96
United States and South America	.60	1.87	1.37
United States and Europe	.29	1.33	.77
United States and Far East	1.35	.66	1.23
Europe and South America	.64	1.33	.93
Europe and Canada	.62	1.11	1.02
Cristobal and South America	.15	1.10	.81
United States and Australasia	.88	.....	.88
United States and Canada	1.53	1.25	1.29

COMMODITY STATISTICS.

Cargo moving through the Canal in October, 1923, totaled 2,127,567 long tons. This is a little less than the cargo in September, 1923, which was 2,168,703 tons and about 47 per cent more than the amount for October, 1922, which was 1,445,863 tons. There were 622,747 tons from the Atlantic to the Pacific as compared with 565,075 in October, 1922, and 1,504,820 tons from the Pacific to the Atlantic, as compared with 880,788 in October, 1922. The Atlantic-to-Pacific movement shows an increase of 57,672 tons and the Pacific-to-Atlantic an increase of 624,032 tons over the cargo in the corresponding month of the previous year.

Mineral oils make up slightly more than half of the Pacific to Atlantic tonnage, with 803,994 tons as compared with 982,416 tons in September, 1923, and 93,925 tons in October, 1922. Lumber, ore, nitrates, and wheat are the next heaviest items in the order named.

From the Atlantic to the Pacific manufactured goods, with 183,473 tons make up the heaviest item, with mineral oils, crude, and refined, 131,513 tons coming next, both items being considerably heavier than in the corresponding month in 1922.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	October, 1923.	October, 1922.	October, 1921.
Atlantic to Pacific.			
Ammonia	7,093	2,526	12,072
Automobiles	5,857	5,545	1,235
Cement	12,724	9,404	2,681
Coal and coke	23,232	35,203	21,515
Cotton	9,074	10,179	14,725
Manufactured goods:			
Iron and steel	140,171	107,389	48,074
Railroad material	17,121	18,002	4,942
Machinery	16,673	9,047	4,772
Textiles	9,508	3,030	1,262
Mineral oils:			
Crude petroleum	51,607	25,771	68,891
Lubricating	6,644	2,822	2,965
Refined	73,262	76,834	20,986
Metals, various	15,436	9,288	8,880
Paper	11,326	7,237	1,210
Sulphur	3,300	7,507	.....
Other and general	219,719	235,291	160,227
Totals	622,747	565,075	374,437
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	780,882	93,925	670
Refined	23,112	.....	2,498
Nitrates	81,188	151,126	54,256
Lumber	144,054	105,108	56,606
Barley	32,659	66,288	67,092
Borax	5,580	.....	.....
Canned goods	76,812	75,660	60,831
Beans	2,909	4,365	20,547
Coffee	2,959	2,652	4,594
Cold storage	9,820	.....	.....
Metals, various	26,025	25,517	11,078
Ores, various	82,623	57,598	3,824
Rice	120	3,449	4,054
Cotton	4,167	4,883	9,196
Sugar	28,009	31,707	20,261
Wool	2,566	7,459	9,081
Wheat	70,219	119,535	3,950
Other and general	131,116	131,534	282,800
Totals	1,504,820	880,788	611,338

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of October, 1923, was published in THE PANAMA CANAL RECORD for November 14, 1923. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of October, 1923, as compared with the same month in the year 1922 and 1921:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	October 1923.	October, 1922.	October, 1921.	October, 1923.	October, 1922.	October, 1921.
United States intercoastal	109	44	22	104	29	19
United States and South America	14	21	10	20	23	12
Europe and South America	19	16	8	14	18	12
United States and Far East	14	19	19	3	3	4
Europe and United States	13	11	27	14	23	29
Europe and Canada	5	5	3	5	9	5
Europe and Australasia	9	7	8	4	1	6
United States and Australasia	9	7	4	.....	.....	1
Mexico and South America	5	3	1	1	1	2
Cristobal and South America	3	8	11	5	7	12
United States and Canada	1	1	.....	7	4	.....
Miscellaneous	28	17	18	21	17	22
Totals	229	159	131	198	135	124
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	617,389	218,319	113,712	576,366	156,772	96,731
United States and South America	51,593	83,636	27,034	79,114	91,440	36,182
Europe and South America	81,895	68,936	28,832	55,282	72,953	53,704
United States and Far East	75,628	100,000	93,947	16,661	14,776	19,465
Europe and United States	66,486	54,505	135,184	69,763	114,484	125,113
Europe and Canada	29,384	31,036	15,994	21,920	48,055	26,043
Europe and Australasia	64,919	42,141	46,421	23,860	3,930	36,498
United States and Australasia	44,955	27,528	17,558	.....	.....	4,938
Mexico and South America	26,394	14,170	5,311	4,831	4,382	9,719
Cristobal and South America	3,915	14,511	16,733	9,252	12,106	18,077
United States and Canada	4,381	4,381	.....	30,295	15,826	.....
Miscellaneous	111,800	53,289	70,449	73,392	63,216	71,909
Totals	1,178,739	712,452	571,175	960,736	597,940	498,379
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	187,533	176,911	86,442	963,778	235,728	105,951
United States and South America	30,957	19,476	10,398	147,964	156,491	31,664
Europe and South America	53,244	61,376	13,332	73,769	100,131	67,808
United States and Far East	102,386	107,568	123,689	11,058	22,214	27,918
Europe and United States	19,916	34,915	10,891	111,369	184,094	209,788
Europe and Canada	18,205	21,848	11,114	34,397	71,151	39,985
Europe and Australasia	51,425	34,314	35,426	23,475	4,514	33,305
United States and Australasia	39,174	40,002	16,432	.....	.....	3,300
Mexico and South America	51,030	25,885	9,500	.....	.....	.....
Cristobal and South America	559	2,134	2,309	10,179	5,328	11,107
United States and Canada	6,731	5,900	.....	37,929	23,522	.....
Miscellaneous	71,587	34,746	54,904	90,902	77,615	80,512
Totals	622,747	565,075	374,437	1,504,820	880,788	611,338

LATIN-AMERICAN TRAFFIC.

This traffic shows a decrease in October, 1923, as compared with October, 1922, in every respect but that of cargo carried which shows an increase of 17,060 tons from the Atlantic to Pacific for October, 1923. There is, however, a substantial increase for October, 1923, as compared with October, 1921, in all respects.

Cargo tonnage for October, 1923, was 148,677 long tons from the Atlantic to the Pacific as compared with 131,617 in October, 1922, and 77,406 in October, 1921; from the Pacific to the Atlantic the cargo tonnage was 301,646 for October, 1923, as against 305,362 in October, 1922, and 125,384 in October, 1921.

Tolls for October, 1923, were $185,688.25 from the Atlantic to the Pacific as against $201,623.48 for October, 1922, and $106,777.62 for October, 1921. From the Pacific to the Atlantic the tolls collected were $195,568.62 for October, 1923, as against $209,259.44 for October, 1922, and $131,832.89 for October, 1921.

The principal commodities routed from Latin-American points were nitrates, iron ore, sugar, copper, cotton, and borax in the order named. To Latin-American points the principal commodities were mineral oils, manufactured goods, coal and coke, and cement in the order named.

Nitrate shipments from South America were 81,188 long tons as compared with 173,324 in September, 1923, and 112,114 in August, 1923.

In the tabulation below is shown the tonnage and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessels; together with the totals in each direction for the years 1922 and 1921:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	16	48,564	59,553	81,251	49,507	$59,306.77	60,487
Chilean	2	4,723	6,192	9,476	5,247	5,903.75	2,018
Colombian	2	401	412	1,917	682	457 44	478
Dutch	1	2,494	3,195	3,981	2,423	3,117.50	3,200
French	1	4,483	4,515	4,745	2,969	5,478.00	1,704
German	5	16,183	22,545	26,496	16,265	20,228.75	16,872
Italian	2	5,898	6,978	8,813	5,259	7,226.05	922
Japanese	2	8,495	9,836	12,450	8,366	10,618.75	11,618
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	5,631
Norwegian	2	5,155	5,199	6,267	4,359	6,410.65	5,566
Panaman	2	95	95	123	72	114.00	60
Peruvian	3	5,235	8,429	12,849	6,958	5,619.23	765
Spanish	1	4,120	5,518	7,578	4,492	5,150 00	277
United States	14	47,056	58,458	79,175	46,637	52,788.61	39,079
Totals, October, 1923	54	155,517	194,629	259,217	156,385	185,688.25	148,677
Totals, October, 1922	60	177,275	221,961	292,347	178,022	201,623.48	131,617
Totals, October, 1921	41	88,017	114,095	148,597	91,389	106,777.62	77,406
Pacific to Atlantic.							
British	22	66,136	77,850	107,205	66,282	81,930.57	111,645
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,343
Colombian	1	334	335	864	614	402.00	171
Danish	1	3,033	3,428	4,932	3,037	3,791.25	7,100
Dutch	3	6,119	10,590	9,984	6,149	7,648 75	14,416
Finnish	1	1,162	1,158	1,334	1,106	1,389.60	1,200
German	3	7,957	9,409	11,875	8,115	9,862.30	13,185
Jugo-Slavic	1	2,694	3,987	4,280	2,705	3,367.50	7,352
Peruvian	3	7,735	11,849	18,527	10,279	9,571 25	14,641
Spanish	3	6,990	9,301	11,432	6,615	8,737.59	8,914
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,372
United States	15	50,565	62,458	86,424	50,225	62,947.90	115,307
Totals, October, 1923	55	157,461	196,507	266,315	160,567	195,568.62	301,646
Totals, October, 1922	60	169,753	215,830	279,319	170,634	209,259 44	305,362
Totals, October, 1921	47	114,406	145,941	189,888	117,021	131,832 89	125,384

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 61.11 per cent of the total transit of the Canal during the month, comprised approximately 66 per cent of the net tonnage, and carried approximately 67 per cent of the total cargo in transit through the Canal.

The following statement shows the commercial traffic through the Canal in October, 1923, classified according to nationality of vessels by directions, and then the combined traffic in both directions together with totals for October, 1922 and 1921:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	58	239,450	299,459	377,503	235,484	$279,100.59	217,449
Chilean	2	4,723	6,192	9,476	5,247	5,903.75	2,018
Colombian	2	401	412	1,017	682	457.44	478
Dutch	2	8,270	10,716	13,380	8,237	10,337.50	9,165
French	3	15,513	16,896	20,249	12,000	19,265.50	7,892
German	6	19,745	27,238	32,052	19,840	24,681.25	21,596
Italian	2	5,898	6,978	8,813	5,259	7,226.05	922
Japanese	9	36,971	42,889	54,880	36,073	44,672.85	47,245
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	5,631
Norwegian	5	16,340	19,269	24,238	15,637	18,981.14	17,286
Panaman	2	95	95	123	72	114.00	60
Peruvian	3	5,235	8,429	12,849	6,958	5,619.23	765
Spanish	1	4,120	5,518	7,578	4,492	5,150 00	277

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.—Contd.							
Swedish	1	2,259	3,900	3,805	2,833	$2,823.75	5,016
United States	132	589,117	727,005	931,531	588,808	596,147.47	286,947
Totals, October, 1923	229	950,752	1,178,739	1,502,481	944,771	1,023,749.27	622,747
Totals, October, 1922	159	566,856	712,452	899,040	565,986	657,837.91	565,075
Totals, October, 1921	131	459,713	571,175	708,363	458,589	541,994.93	374,437
Pacific to Atlantic.							
British [1]	38	131,459	159,067	212,010	131,686	163,584.32	214,818
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,343
Colombian	1	334	335	864	614	402.00	171
Danish	4	14,460	18,701	22,977	14,534	18,075.00	31,545
Dutch	4	10,666	17,646	17,294	10,644	13,332.50	23,248
Finnish	1	1,162	1,158	1,334	1,106	1,389.60	1,200
French	1	4,879	4,959	6,674	4,230	5,967.60	7,114
German	4	10,192	13,113	15,545	10,323	12,656.05	18,533
Japanese	5	22,240	25,805	33,260	21,802	27,620.95	26,460
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	7,352
Norwegian	1	967	1,152	1,650	819	1,208.75	1,917
Peruvian	4	7,735	11,840	18,527	10,279	9,571.25	14,641
Spanish	3	6,990	9,301	11,432	6,615	8,737.50	8,914
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,372
United States	129	555,729	687,521	886,599	555,268	693,025.40	1,141,192
Totals, October, 1923	198	774,243	960,736	1,241,904	776,065	964,858.42	1,504,820
Totals, October, 1922	135	482,402	597,940	753,395	476,980	597,670.09	880,788
Totals, October, 1921	124	406,483	498,379	627,449	405,087	506,940.69	611,338
Combined traffic.							
British	96	370,909	458,526	589,513	367,170	442,684.91	432,267
Chilean	3	8,202	10,864	16,765	9,133	10,252.50	7,361
Colombian	3	735	747	1,881	1,296	859.44	649
Danish	4	14,460	18,701	22,977	14,534	18,075.00	31,545
Dutch	6	18,936	28,392	30,674	18,881	23,670.00	32,413
Finnish	1	1,162	1,158	1,334	1,106	1,389.60	1,200
French	4	29,392	21,855	26,914	16,230	25,233.10	15,006
German	10	29,937	49,351	47,597	30,163	37,337.30	40,129
Italian	2	5,898	6,978	8,813	5,259	7,226.05	922
Japanese	14	59,211	68,604	88,140	57,875	72,293.80	73,705
Jugo-Slavic	2	5,309	7,700	9,285	5,944	6,636.25	12,983
Norwegian	6	17,307	20,421	25,883	16,456	20,189.89	19,203
Panaman	2	95	95	123	72	114.00	60
Peruvian	7	12,970	20,269	31,376	17,237	15,190.48	15,406
Spanish	4	11,110	14,819	19,010	11,017	13,887.50	9,191
Swedish	2	3,516	5,379	5,965	4,387	4,395.00	7,388
United States	261	1,141,846	1,414,526	1,818,130	1,144,076	1,289,172.87	1,428,139
Totals, October, 1923	427	1,724,995	2,139,475	2,744,385	1,720,836	1,988,607.69	2,127,567
Totals, October, 1922	294	1,049,258	1,310,392	1,652,435	1,042,966	1,255,508.00	1,445,863
Totals, October, 1921	255	866,196	1,069,554	1,335,812	863,676	1,047,935.62	985,775

[1] Includes 1 British cruiser.

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and Nationality.	Atlantic to Pacific. No. ships.	Atlantic to Pacific. Panama tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. ships.	Pacific to Atlantic. Panama tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	5	28,420	$20,462.40	1	4,831	$3,478.32
United States	71	434,967	314,382.27	.....	.....	.....
General cargo ships:						
British	7	36,552	26,317.44	1	72	78.75
Colombian	1	77	55.44	.....	.....	.....
Japanese	1	4,305	3,099.60	.....	.....	.....
Norwegian	1	5,242	3,774.24	.....	.....	.....
Panaman	1	26	31.20	.....	.....	.....
Peruvian	1	3,084	2,220.48	.....	.....	.....
United States	2	8,651	6,279.00	2	3,165	3,595.30
Totals	90	521,324	376,622.97	4	8,068	7,152.37

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of October, 1923, by kinds of vessels is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama tonnage.	Tolls.	No. of ships.	Panama tonnage.	Tolls.
Tank ships:						
Laden	7	37,299	$38,925.00	70	420,015	$435,194.10
Ballast	76	463,387	334,844.67	1	4,831	3,478.32
General cargo and passenger ships:						
Ballast	14	57,937	41,777.40	3	3,237	3,674.05
Laden	132	620,116	608,202.20	124	532,653	522,511.95
Totals	229	1,178,739	1,023,749.27	198	960,736	964,858.42
Steamers	218	1,145,695	993,713.81	186	914,433	918,696.22
Motor ships	6	32,766	29,761.77	8	43,004	42,326.25
Motor schooners	4	244	248.19	1	72	78.75
Sailing vessels				2	2,987	3,584.40
Yachts				1	240	172.80
Barges	1	34	25.50			
Totals	229	1,178,739	1,023,749.27	198	960,736	964,858.42

Of the 404 steam vessels, 301 were oil burners, 99 coal burners, and 4 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statements show the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of October, 1923. If tolls had been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers				1	[1] 3,200	$1,600.00
Submarines	8	[1] 4,085	$2,042.50	2	[1] 1,040	520.00
Supply ships	1	[2] 5,233	6,279.60			
Tugs	4	[1] 3,900	1,950.00	1	[1] 1,000	500.00
Transports	2	[2] 8,313	9,975.60	1	[3] 3,802	4,752.30
Tankers	1	[3] 6,258	7,822.50	1	[3] 6,246	7,807.50
U. S. Army vessels:						
Dredge				1	[3] 1,750	2,187.50
Totals	16	27,789	28,070.20	7	17,038	17,367.30

[1] Displacement tonnage. [2] Panama Canal net tonnage. [3] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	13,116
Pacific to Atlantic	9,792
Total	22,908

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	20	77	$88.80
Pacific to Atlantic			
Totals	20	77	$88.80

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of The Panama Canal during the month of October, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Totals.
Local cargo arriving....tons..	36,266	33,518	69,784
Local cargo shipped....tons..	3,675	66	3,741
Transit cargo arriving....tons..	2,173,257	2,127,960	4,301,217
Transit cargo clearing....tons..	2,164,623	2,118,199	4,282,822
Cargo received for transshipment....tons..	22,271	554	22,825
Cargo transshipped....tons..	16,719	74	16,793
Vessels supplied with bunker coal:			
Army vessels....	3	2	5
Commercial, other than Panama Railroad....	39	3	42
Panama Railroad vessels....	1	.....	1
Total vessels supplied with coal....	43	5	48
Coal supplied to above vessels:			
Army vessels....tons..	1,250	92	1,342
Commercial, other than Panama Railroad....tons..	11,357	8	11,365
Panama Railroad vessels....tons..	612	.....	612
Total coal supplied to vessels....tons..	13,219	100	13,319
Coal issued, miscellaneous:			
Panama Canal departments....tons..	721	154	875
Panama Railroad Co....tons..	43	.....	43
U. S. Army, excepting vessels....tons..	262	.....	262
Individuals and companies....tons..	210	61	271
Total issues from Canal deposits:			
October, 1923....tons..	14,455	315	14,770
October, 1922....tons..	14,671	1,639	16,310
October, 1921....tons..	13,759	1,745	15,504
Coal on hand, November 1, 1923....tons..	80,657	.....	80,657
Coal on hand, October 1, 1923....tons..	83,091	111	83,202
Coal received during the month....tons..	12,021	204	12,225
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	5,454.25	19,714.21	25,168.46
Panama Railroad Co....bbls..	794.62	489.43	1,284.05
Army and Navy....bbls..	501.60	137.14	638.74
Total issues and sales....bbls..	6,750.47	20,340.78	27,091.25
Borrowed from Union Oil Co....bbls..	.....	478.00	478.00
Loaned to U. S. Shipping Board....bbls..	16,502.90	.....	16,502.90
Returned by U. S. Shipping Board....bbls..	36,146.51	.....	36,146.51
Received during October, 1923....bbls..	.....	22,495.70	22,495.70
Fuel oil on hand, November 1, 1923....bbls..	52,988.86	30,957.05	83,945.91
Diesel oil sold during October, 1923....bbls..	218.23	8.44	226.67
Diesel oil on hand, November 1, 1923....bbls..	41,833.60	780.65	42,614.25
Oil pumped for individuals and companies....bbls..	410,641.41	521,303.73	931,945.14
Miscellaneous transfers....bbls..	11,206.70	9,238.90	20,445.60
Gasoline pumped for The Panama Canal....bbls..	697.24	1,131.49	1,828.73
Gasoline pumped for individuals and companies....bbls..	.....	1,883.36	1,883.36
Total fuel oil and gasoline handled....bbls..	429,514.05	576,402.40	1,005,916.45
Admeasurement of vessels:			
U. S. equivalent certificate issued or made....	22	5	27
Measured for Panama Canal net tonnage....	4	3	7
Remeasured for Panama Canal net tonnage....	16	3	19
Panama Canal net tonnage corrected....	10	9	19
U. S. equivalent tonnage corrected....	16	15	31
Services of harbor equipment:			
Tugs, total operating hours....	447¼	429¾	877
Launches, total operating hours....	1,286½	1,440½	2,727
Scows, total operating days....	.....	14	14
Revenue from tug service, pilotage, etc.:			
Tug revenue....	$11,716.25	$9,868.75	$21,585.00
Pilotage....	12,565.00	6,548.00	19,113.00
Seamen....	7,728.00	6,920.00	14,648.00
Launch service....	1,826.50	2,402.50	4,229.00
Wharfage....	.....	4,222.86	4,222.86
Ships measured....	135.00	150.00	285.00
Miscellaneous cash collections....	1,655.70	946.00	2,601.70
Vessels repaired at Panama Canal shops:			
Commercial....	40	41	81
U. S. Army and Navy....	6	10	16
Canal equipment....	9	17	26

	Cristobal.	Balboa.	Totals.
Vessels drydocked:			
Commercial	2	2	4
U. S. Army and Navy	1	1	2
Panama Canal equipment	1	5	6
Clearances issued	240	239	479
Bills of health issued	245	245	490

[1] Borrowed from U. S. Navy supply.

ALL VESSELS ENTERING AND CLEARING PORTS.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal.	480	3,084,112	1,928,223	435	2,846,065	1,800,943
Vessels entering port but not transiting Canal	50	274,344	164,506	6	14,713	11,312
Vessels transiting Canal and handling passengers and cargo at terminals	59	311,326	187,597	41	236,817	144,128
Ships clearing.						
All vessels, including those transiting Canal	477	3,058,613	1,913,328	437	2,843,456	1,795,859
Vessels entering port but not transiting Canal.	48	263,461	157,902	7	30,356	17,734
Vessels transiting Canal and handling passengers and cargo at terminals	61	315,056	190,057	41	236,817	144,128

MOVEMENT OF PASSENGERS.

The following statement shows the number of passengers arriving and embarking at Canal ports during the month of October, 1923:

	At Cristobal.			At Balboa.		
	First class.	Others.	Total.	First class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,430	641	2,071	14	14	28
From Pacific ports	103	38	141	92	59	151
Total disembarking	1,533	679	2,212	106	73	179
Embarking:						
For Atlantic ports	769	921	1,690	11	2	13
For Pacific ports	189	64	253	56	27	83
Total embarking	958	985	1,943	67	29	96
Remaining on board vessels:						
From Atlantic to Pacific ports	910	2,867	3,777	998	3,377	4,375
From Pacific to Atlantic ports	451	994	1,445	523	1,035	1,558
From Atlantic to Atlantic ports	313	58	371	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	5	.....	5
Total remaining on board	1,674	3,919	5,593	1,526	4,412	5,938
Total passengers arriving	3,207	4,598	7,805	1,632	4,485	6,117
Total passengers departing	2,632	4,904	7,536	1,593	4,441	6,034

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of October, 1923:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$110.30	$465.48	$2,654.89	.....	$879.40	$4,110.07
Panama Railroad vessels	9.45	78.03	2,001.55	.....	647.53	2,736.56
Other commercial vessels	1,100.15	4,913.11	12,552.23	587.89	1,454.68	20,608.06
Total sales, October, 1923	1,219.90	5,456.62	17,208.67	587.89	2,981.61	27,454.69
Total sales, October, 1922	1,095.83	4,375.96	15,693.18	.....	1,420.17	22,585.14
Total sales, October, 1921	1,419.33	5,105.86	23,473.28	120.82	1,518.08	31,637.37

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Balboa to:						
U. S. Government vessels	$298.42	$1,611.12	$13,429.45	$231.02	$492 82	$16,062.83
Other commercial vessels	512.21	1,263.46	5,688.67	204.37	3,669.82	11,338.53
Total sales, October, 1923	810.63	2,874.58	19,118.12	435.39	4,162.61	27,401.36
Total sales, October, 1922	534.06	5,914.93	15,854.09	379.80	1,105 01	23,787.92
Total sales, October, 1921	1,068.58	3,265.59	11,028.71	2,918.81	301.09	18,583.78

The aggregate sales to government vessels during the month were $20,172.90; to Panama Railroad vessels, $2,736.56; to other commercial vessels, $31,946.59; making a grand total of $54,856.05.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of October, 1923, as compared with the same month in 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Oct., 1923.	Oct., 1922.	Oct., 1921.
Gatun	197	215	412	6	5	11	423	297	263
Pedro Miguel	198	225	423	11	18	29	452	319	286
Miraflores	198	223	421	9	16	25	446	317	289
	Number of vessels put through locks.								
Gatun	217	251	468	21	27	48	516	344	307
Pedro Miguel	198	227	425	33	43	76	501	357	342
Miraflores	198	227	425	31	38	69	494	357	344

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
U. S. Army and Navy vessels	26	16	20
Panama Canal equipment	22	60	49

The total consumption of water for lockages, loss in leakages, and maintenance was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockage	1,679,180,000	1,580,580,000	1,348,820,000
Leakage	30,000,000	13,720,000	20,000,000
Maintenance			
Total consumption, October, 1923	1,709,180,000	1,594,300,000	1,368,820,000
Total consumption, October, 1922	1,217,140,000	1,173,170,000	987,390,000
Total consumption, October, 1921	1,042,730,000	989,610,000	967,480,000

METEOROLOGY AND HYDROGRAPHY.

The rainfall for October, 1923, was above normal at all stations in the Canal Zone and immediate vicinity. Totals ranged from 12.69 inches at Taboga to 44.35 inches at Agua Clara. The greatest amount of rainfall recorded in any one day was 12.25 inches at Gatun on the 23d, breaking all Isthmian records for 24-hour fall. The estimated rainfall over the Gatun Lake watershed was 30.21 inches, compared with a 13-year mean of 16.85 inches; over the Chagres River watershed above Alhajuela, it was 28.59 inches, compared with a 22-year mean of 15.69 inches.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of October, 1923, are shown in comparison with the same month in prior years:

Rainfall.	October, 1923.	October, 1922.	October—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Total rainfall for month:					
Pacific section	15.18	10.79	11.70	6.28	11.25
Central section	28.23	13.58	20.85	9.37	14.60
Atlantic section	37.85	13.96	25.70	7.92	15.28
Maximum recorded on any one day	12.25	5.38	[1] 10.86	.....	.....
Gatun Lake watershed	30.21	14.42	22.86	8.72	15.73
Chagres River above Alhajuela	28.59	13.53	26.07	8.26	15.08
Maximum recorded for month at any one point	44.35	17.81	30.32	.....	.....
Minimum recorded for month at any one point	12.69	7.56	.....	1.62	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	8,126	3,600	5,135	2,031	3,459
Maximum momentary discharge for month	103,800	25,790	[2] 170,000	.....	.....
Gatun Lake watershed total yield	27,260	11,667	16,291	7,858	11,964
Gatun Lake watershed net yield	26,805	11,201	15,744	7,798	11,460
Draft on Gatun Lake for lockages and power	2,537	[3] 2,166	[3] 2,305	[3] 1,191	[3] 1,945

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation prior to the current month. Recorded at Porto Bello on December 28-29, 1909. [2] This figure represents the maximum momentary discharge on record, December 26, 1909. [3] Not including October, 1914.

(NOTE—Extreme outlying stations in the Republic of Panama are not included in this report.)

EFFECTS OF HEAVY RAINFALL.

The heavy rainfall was responsible for a temporary interruption of traffic on October 23, when no ships were allowed to begin the transit of the Canal between 6.30 a. m. and 3.30 p. m. The interruption was due in part to a strong current at Gamboa, where the waters of the Chagres River enter the Canal prism, but primarily to the use of the lock culverts at Gatun and Pedro Miguel to discharge excess water from the lake, supplementing the Gatun Spillway, where 11 of the 14 gates were at one time in operation. It was impracticable to open the remaining 3 spillway gates without endangering the Mindi dike, which prevents the flow of water from the spillway channel into the Canal channel below Gatun. With only 11 gates in operation this dike was weakened and had to be reinforced.

In the afternoon of October 23 the 19 ships which had been delayed at the ends of the Canal were taken through the first locks, and on October 24 they completed the transit.

At 5 p. m. on October 24 traffic was again suspended until the following morning to permit the use of the lock culverts to spill water from the lake.

The situation was aggravated locally by small slides and washouts on the Panama Railroad, breaks in the water mains on both sides of the Isthmus and a break in the transisthmian duct line which interrupted telephone, telegraph, and cable communication. One of the track spans carrying the high voltage transmission line was also carried away, but this had been anticipated and provided for.

The rains also contributed to a slide in the Gaillard Cut on the night of October 27-28, which impeded but did not interrupt traffic. The details of this slide are given in the section covering the work of the Dredging Division.

SEISMOLOGY.

Two seismic tremors were recorded at Balboa Heights during the month; they were of comparatively close origin and not of sufficient intensity to be noticable by people.

ELECTRICAL POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	October, 1923.	October, 1922.	October, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,428,430	4,359,800	5,304,100
Miraflores steam plant	26,830	70	1,190
Power distributed to consumers, KWH	3,885,166	3,739,916	4,448,013
Loss of power in plants, accessories, transmissions, and transformers, KWH	543,264	619,954	857,277
Per cent of loss of power to gross output	12.25	14.21	16.15
Water consumption, cubic feet	3,534,556,678	3,455,426,514	4,062,727,820
Oil consumption, barrels	1,553.87	1,381.00	1,953.00

Miscellaneous electrical repairs and installations of electric equipment were made on 38 vessels during the month. There were 351 work orders issued for work performed by the different sections of the Electrical Division during the month, as compared with 260 issued during the month of September.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 55 vessels at Cristobal and 58 at Balboa. Of these 4 were placed in dry dock at Cristobal, and 8 at Balboa. The more important repair work during the month included the following:

On the steamship *Bidwell* a hard patch was installed over hole in starboard side of forepeak tank by the use of a cofferdam. Loose and broken rivets in wake of hole were replaced by bolts by diver.

The yacht *Ohio* was dry docked, and bottom, hull, and superstructure scaled and painted. Tanks, chain locker, etc., were scaled and painted. Miscellaneous repairs were made to machinery and equipment.

The work of installing the additional pontoons on the dredge *Paraiso* was practically completed within the month and the boat undocked.

Overhaul of submarine *O–4* was continued, routine overhaul of submarine *O–7* was completed and that on submarine *O–9* was carried forward.

Docking and painting of the dredge *Culebra*, installation of temporary hatch covers, bulkheads, and sheathing over the hopper doors of boat, to put the dredge in ocean-going condition was practically completed.

Twenty-seven commercial vessels received repairs during the month. There were no special jobs on any of them; the steamship *Talaralite* had the greatest number of small items performed for any one job.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	October, 1923.			September, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	9	247	27,322	5	423	39,067
Steel		93	27,017	4	120	4,653
Nonferous	13	531	12,134	4	413	6,873

There were 612 job orders on hand at the beginning of the month, 569 were authorized and 610 were completed during the month, leaving 571 on hand at the close of the month.

There were 345 standing orders at hand at the beginning of the month. None were authorized and none were completed during the month, leaving 345 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of all pumping stations and of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

Item.	October, 1923.	October, 1922.	October, 1921.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	608,456,250	655,199,000	818,193,700
Filtration plants	364,951,000	374,462,000	515,581,000
Water consumed by Panama	85,622,000	85,529,000	83,808,000
Water consumed by Colon	48,057,000	59,548,750	66,037,000
Sales of water to vessels	9,720,980	7,983,967	12,627,357

Work was continued on installation of an 8-inch oil line on docks 6 and 7, Balboa, which is now 50 per cent completed. This division furnished supervision, skilled labor, and steam supply on the construction of a culvert at Lirio Lagoon; this work was 45 per cent completed at the end of the month.

The unprecedented heavy rains from October 22 to the end of the month caused serious breaks in the water mains both on the Atlantic and Pacific sides, necessitating extensive repairs which are underway. On the Pacific side it became necessary to install a suction dredge in Miraflores Lake for the purpose of supplying the Miraflores filtration plant with water, to maintain a water supply for the Pacific end. The dredge was still in use for this purpose over the end of the month. Pumps are being installed in the old Miraflores pumping station and the work was 40 per cent completed.

DREDGING.

The general movement of West Culebra slide continued during the month, increasing after the heavy rains (22d to 26th) and quieting to normal at the end of the month, the maximum movement toward the Canal on the bank being 14.5 feet, between stations 1774 and 1776, with average movement of 9.0 feet between 1770 and 1796.

Movement of the East Culebra slide was only slight along the water front, excepting at the north end between 1769–50 and 1773–00, where the bank slipped, following heavy rains, pushing about 16,000 cubic yards of material into the Canal prism. The dredge *Cascadas* removed 13,550 cubic yards of this material.

Cucuracha slide remained quiescent during the month.

Just south of Cucuracha and Purple Rock a movement occurred October 24 on the east side, extending from stations 1819–00 to 1822–00. About 5,000 cubic yards came into the Canal prism but the break extends a considerable distance back from the Canal. The dredge *Cascadas* worked in this area, removing 4,750 cubic yards.

Several other breaks occurred in the banks of the Canal during the abnormal rains between the 22d and the 26th, the principal ones being at 1820–00 west, 1919–00 west, and several washes bringing material from higher levels down to the 95-foot berm. It is estimated that a total of about 30,000 cubic yards of material came into the Canal at scattered points due to these minor breaks and bank washes.

On the night of October 27–28 a slide occurred between stations 1729–00 and 1740–00 west. About 300,000 cubic yards of rock came into the Canal prism, leaving a channel about 120 feet wide and 35 feet deep. The material is soft rock. A portion of the 95-foot berm was moved out to the Canal center line intact. This slide is just south of, and will probably eventually join the West Lirio slide. Dredges *Cascadas* and *Gamboa* have been working in this area since Sunday, October 28. Canal traffic has been handled without interruption by passing northbound ships through the slide starting at 2 p. m., and the southbound traffic immediately afterwards. The break at the back of the slide is about 400 feet from the west prism line, and there are additional cracks extending north and south from the first break, as well as cracks paralleling the break, but farther back.

The total excavation during the month was 531,450 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
51,250	11,250	40,000	Maintenance	Gaillard Cut, east and west	*Cascadas.*
17,150	5,550	11,600	Maintenance	Gaillard Cut, East Culebra	*Cascadas.*
20,200	.....	20,200	Maintenance	Gaillard Cut, West Lirio, south	*Cascadas.*
58,800	.....	58,800	Maintenance	Gaillard Cut, La Pita Point improvement project	*Gamboa.*
11,250	.....	11,250	Maintenance	Gaillard Cut	*Gamboa.*
20,700	.....	20,700	Maintenance	Gaillard Cut, West Lirio, south	*Gamboa.*
133,600	133,600	.....	Maintenance	Gaillard Cut, Culebra slides	*No. 86.*
192,100	192,400	.....	Maintenance	Atlantic entrance	*Culebra.*
13,800	13,800	.....	Maintenance	Pacific entrance	*Culebra.*
12,300	12,300	.....	Auxiliary	Balboa inner harbor	*Culebra.*

SCHOOLS.

Canal Zone colored schools opened on Tuesday, October 2 and white schools on the 5th, teachers' meetings being held in each case on the day before the opening. The average daily attendance for white schools was the highest since 1918. The average daily attendance for colored schools was slightly less than last year but with that exception the highest since 1918.

The following is a comparison of the average daily attendance for the month of October in both white and colored schools, from 1918 to 1923, inclusive:

	1918.	1919.	1920.	1921.	1922.	1923.
White schools	1,461.1	1,565.8	1,639.9	1,556.3	1,415.6	1,641.6
Colored schools	765.5	870.0	1,042.8	1,277.8	1,651.7	1,449.5
Total average daily attendance	2,226.6	2,435.8	2,682.7	2,834.1	3,067.3	3,091.1

The gross and net enrollment, number of teachers employed, cases of absence and tardiness for the past month, are shown in the following summary:

	White.	Colored.	Total.
Gross enrollment	1,799	1,794	3,593
Net enrollment	1,789	1,762	3,551
Pupils neither absent nor tardy	916	266	1,182
Number of cases of tardiness	539	39	578
Number of teachers	78	39	117

VITAL STATISTICS.

A total of 148 deaths occurred during the month of October, 1923, among the population of the Canal Zone and the cities of Panama and Colon. This is equivalent to an annual death rate of 14.68 per thousand. The leading causes of death were: Pneumonia, broncho and lobar, 26; tuberculosis, 23; nephritis, acute and chronic, 18; diarrhea and enteritis, 16; organic diseases of the heart, 12. Of the total deaths, 54, or 36 per cent, occurred among children under 5 years of age. There were 8 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 306 live births reported during the month, and 19 stillbirths. Including stillbirths, this is equivalent to annual birth rate of 32.23 per thousand. Deaths among children under 1 year of age numbered 34, giving an infant mortality rate of 111.11 per thousand live births.

The total number of malaria cases reported during the month was 84. Of these one was reported from Panama City, 4 from Colon, 65 from the Canal Zone, and 14 originated outside of our sanitated area. Of the total, 9 were employees, 30 were non-employees, and 45 were from the Army and Navy personnel. There were no deaths from malaria.

OCCUPANTS OF QUARTERS.

The numbers of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of October 31, 1923.			Comparative totals.		
	Men.	Women.	Children.	October, 1923.	October, 1922.	October, 1921.
Americans	2,359	1,985	2,094	6,438	5,771	7,020
Europeans	67	29	71	167	215	261
West Indians	4,160	2,625	6,034	12,819	12,539	12,865
Totals, October, 1923	6,586	4,639	8,199	19,424	.....	.....
Totals, October, 1922	6,301	4,458	7,766	.....	18,525	.....
Totals, October, 1921	7,748	4,627	7,771	.....	.....	20,146

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of October 17, 1923, together with a comparison of the working force for the preceding month and that of October, 1922:

	As of October 17, 1923.			Total employees.	
	Gold.	Silver.	Total.	September, 1923.	October, 1922.
Operation and Maintenance:					
Office	27	36	63	61	60
Electrical	153	159	312	314	276
Municipal Engineering	70	454	524	489	588
Lock Operation	292	589	881	773	688
Dredging	144	860	1,004	1,016	913
Mechanical	389	740	1,129	1,147	895
Marine	170	437	607	655	563
Fortifications	13	54	67	83	112
Totals	1,258	3,329	4,587	4,538	4,095
Supply Department:					
Quartermaster	135	992	1,127	1,073	1,050
Subsistence	6	81	87	87	74
Commissary	164	777	941	940	923
Cattle Industry, Plantations	5	172	177	180	142
Hotel Washington	7	84	91	93	84
Transportation	36	154	190	188	173
Totals	353	2,260	2,613	2,603	2,446
Accounting Department	185	8	193	196	193
Health Department	219	702	921	919	912
Executive Department	484	251	735	669	721
Totals	888	961	1,849	1,784	1,826

	As of October 17, 1923.			Total employees.	
	Gold.	Silver.	Total.	September, 1923.	October, 1922.
Panama Railroad:					
Superintendent	47	240	287	288	260
Transportation	64	106	170	170	151
Receiving and Forwarding Agent	73	913	986	992	624
Coaling Stations	63	368	431	633	686
Totals	247	1,627	1,874	2,083	1,721
Grand totals, October, 1923	2,746	8,177	10,923	.....	.....
Grand totals, September, 1923	2,634	8,374	.....	11,008	.....
Grand totals, October, 1922	2,517	7,571	.....	.....	10,088

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month a year ago, were as follows:

	October, 1923.	September, 1923.	October, 1922.
Material received on United States requisitions:			
For department of Operation and Maintenance	$274,979.29	$302,009.43	$89,645.09
For other Canal departments	9,625.49	8,952.97	3,843.15
Totals	284,604.78	310,962.40	93,488.24
Cash sales on the Isthmus:			
Stock	17,626.50	16,955.84	22,732.47
Fuel oil	517.08	2,536.85	377.21
Scrap	648.86	911.05	691.28
Obsolete and second-hand material	697.87	2,376.65	8,819.00
Totals	19,490.31	22,780.39	32,619.96

RESCUE OF CREW OF SUBMARINE *O–5* IN CRISTOBAL HARBOR.

On October 28 at 6.22 a. m. there was a collision in Cristobal harbor between the steamship *Abangarez* of the United Fruit Co. and submarine *O–5*, the latter vessel sinking immediately. Three members of the crew were drowned, and two were imprisoned in the forward compartment. Efforts were at once started to raise the sunken submarine by Navy and Panama Canal divers working with the Canal's floating crane *Ajax*, which was towed from Paraiso to Cristobal for this emergency. The forward end of the submarine was brought to the surface at 1 o'clock on the afternoon of October 29, and the two men who went down in her were taken out alive and have since recovered. To complete the salvage of the vessel it was necessary to use the floating crane *Hercules* in conjunction with the *Ajax*. The naval authorities acknowledged the valuable assistance rendered by the Panama Canal forces, and particularly by Mr. Shepperd J. Shreves, dockmaster and foreman shipwright, who volunteered as a diver, and by Mr. W. H. Stone, production superintendent at the Cristobal shops.

Respectfully,

JAY J. MORROW,
Governor.

Coal Prices at Los Angeles Harbor

A bunkering company in Los Angeles has announced a reduction of the price of bunker coal at Los Angeles harbor to $10.75 a ton, f. o. b. vessel alongside wharf. Trimming is extra at the actual cost of labor and accident insurance plus 15 per cent for supervision. The coal supplied is advertised as high grade steaming coal from the Utah fields. It can be delivered at the rate of 100 to 150 tons an hour, depending on the amount of trimming to be done aboard ship.

Refinery Products from the Los Angeles Oil Fields.

On November 11, 1923, the tankship *Emidio* transited the Canal carrying 7,900 tons of gasoline from Los Angeles to the United Kingdom and on November 17 the tankship *Lio* made the transit with 9,300 tons of gasoline shipped from Los Angeles to Marcus Hook, Pa. These are the first whole cargoes of gasoline shipped from the Los Angeles field through the Canal.

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs during the week ended November 10:

Steamship *Gulf Point*, install temporary cement bulkhead in wake of damages near forepeak tank; launch *Petrolio*, repairs to engines, valves, etc.; steamship *Huguenot*, repair beam plunger pump; motor schooner *Laura C. Hall*, repair clutch; steamships *Hoxbar*, install patch on L. P. cylinder, open up and examine valve chest, L. P. cylinder; repair bilge pump, auxiliary deck line, and manufacture fire room tools; *Commercial Guide*, braze copper steam line; *Toco*, renew main discharge for condenser; *Amsterdam*, dock and undock; renew or repair all damaged shell plate strakes, intercostals, etc.; repair propeller; reline shafting; examine steering gear and condenser; repair anchor windlass, winches, rudder, steering post; scale and clean boilers; repair fuel pipe and fire system; U. S. submarine *O–10*, dock and undock; paint and routine docking repairs.

PREVIOUSLY REPORTED.

Floating caisson *No. 1*, dock and undock; routine repairs; barge *No. 138*, dock and undock; alterations and general repairs; U. S. submarine *O–9*, routine docking repairs; steamship *Colon*, reboilering, general repairs, and reconditioning; Colombian Coast Guard Cutter *No. 3*, general repairs; launch *L–55*, general repairs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending November 24, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Calamares	United Fruit Co.	November 18.	November 18.	20	82
Abangarez	United Fruit Co.	November 18.	November 18.	646	79
Orita	Pacific Steam Navigation Co.	November 18.	November 18.	39	11½
Mantaro	Peruvian Line	November 18.	November 19.	½	765
Bogota	Pacific Steam Navigation Co	November 18.	November 19.	30½	101
Acajutla	Pacific Steam Navigation Co	November 18.		362	
Cristobal	Panama Railroad Steamship Line.		November 19.		1,563
Ebro	Pacific Steam Navigation Co.	November 19	November 20.	572	25
Almelo	Royal Netherlands W. I. Mail	November 19.	November 21.	179	(2)
Perou	French Line		November 21.		829
Eupatoria	Hamburg-American Line	November 20.	November 21.	95	17
Philadelphian	Leyland Line	November 20.	November 22	693	4
Pastores	United Fruit Co.	November 20.	November 21.	376	38
Esparta	United Fruit Co.	November 20.	November 22.	20	175
Garfield	Grace Line	November 21.	November 22.	247	(2)
Sixaola	United Fruit Co.	November 21.	November 22.	159	288
Cardiganshire	Pacific Steam Navigation Co.	November 21.	November 22.	300	1,062
Essequibo	Pacific Steam Navigation Co.	November 22.	November 23.	½	113
Zenon	French Line	November 22.	November 23.	15	(2)
Mineola	Grace Line	November 22.	November 23.	92	(2)
Abangarez	United Fruit Co.	November 22.	November 22.	(1)	10
Camden	United Fruit Co.	November 23.		8,955	
Gen. G. W. Goethals	Panama Railroad Steamship Line.	November 23.		195	
Gen. W. C. Gorgas	Panama Railroad Steamship Line.	November 23.		1,715	
Bayano	Elders & Fyffes, Ltd.	November 24.	November 24.	7	(3)

[1] No cargo discharged. [2] Cargo laded. [3] 300 pounds.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 24, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
No. 6 [2]	13	.....	17	.....	17	13.35	....	.....	American...	American Banana Co.	.....	.....	.....	Cristobal...	Gatun Lake...	Unknown	.....	8	8
Robert E. Hopkins [1]	18	1.25	18	6.30	18	13.42	18	14.49	American...	Tidewater Oil Co.	424.4	58.2	19.0	New York....	San Pedro...	Ballast	.....	7,333	5,244
H. M. Flagler [1]	16	16.36	18	6.25	18	14.33	18	15.30	American...	Standard Oil Co.	461.6	60.0	21.0	Tampico...	San Pedro....	Ballast	.....	8,450	6,089
Balboa	16	18.20	18	10.00	18	16.07	18	17.10	Colombian..	Colombian Maritime Co.	190.0	29.0	11.10	Cristobal....	Tumaco	Ballast	.....	737	335
Santa Paula....	17	20.18	18	10.30	18	17.30	18	20.38	American...	Grace Line	404.6	53.0	22.5	Norfolk.....	Los Angeles.	General	5,514	6,756	4,775
Argosy	18	10.47	18	11.00	18	18.03	19	7.35	American...	Wessel Duval & Co. (S. B.)	390.0	54.0	22.0	New York....	Talcahuano...	General, coal	4,312	6,203	4,280
W. L. Connelly [1]	18	11.54	18	12.00	18	20.40	18	21.58	American...	Sinclair Navigation Co.	304.0	44.2	24.2	Tampico.....	Corinto.....	Crude oil	4,688	3,214	2,326
Agwistone [1]	18	11.00	19	6.30	19	13.58	19	15.02	American...	Atl. Gulf & W. I. S. S. Co.	499.9	68.1	19.0	New York....	Los Angeles...	Ballast	.....	10,853	7,804
Royal City	18	13.05	19	6.15	19	14.31	19	15.41	British.....	Reardon Smith Line	419.0	53.0	23.0	New York....	Wellington....	General	5,300	6,358	4,761
Ariaga Mendi..	18	13.20	19	7.25	19	14.45	19	16.00	Spanish.....	International Navigation Co.	394.0	53.0	11.10	Sagunto.....	Puget Sound..	Ballast	.....	5,943	4,422
Bogstad	18	16.35	19	8.49	19	16.41	19	17.40	Norwegian..	Glittre Kristiania	385.1	52.0	16.0	Birkenhead...	San Francisco.	Ballast	.....	5,843	4,288
Gen. Wm. Graham [3]	....	.....	19	9.00	19	16.40	....	.....	American...	U. S. Army	173.0	32.0	.....	Cristobal.....	Balboa.....	Ballast	.....	.....	.....
London Merchant	19	6.15	19	9.40	19	17.12	20	7.29	British.....	Neptune Steam Navigation Co..	450.4	58.1	16.0	Dartmouth...	Vancouver....	Ballast	.....	8,416	5,720
Nora [1]	19	7.45	19	10.42	19	17.55	19	19.00	American...	Grace Line	467.6	62.7	20.0	Providence....	San Pedro....	Ballast	.....	9,918	7,468
Bogota	18	20.07	19	12.10	19	19.08	19	20.01	British.....	Pacific Steam Navigation Co....	400.0	52.4	20.11	Hull	Coronel.....	General	2,387	5,733	4,015
Mantaro	18	6.55	19	13.30	19	20.23	19	21.36	Peruvian...	Peruvian Line	367.3	46.0	18.6	Cartagena....	Callao.....	General	760	4,838	2,959
Curlew [4]	....	.....	19	6.50	19	13.57	....	.....	American...	U. S. Navy	.....	.....	.....	Cristobal.....	Balboa.....	Balast	.....	.....	.....
L-53 [5]	....	.....	19	9.00	19	16.40	....	.....	American...	U. S. Army	.....	.....	.....	Cristobal.....	Balboa.....	Ballast	.....	.....	.....
Roy [5]	....	.....	19	.....	19	11.11	....	.....	American...	Walker & Hooper	.....	.....	.....	Cristobal.....	Gatun Lake...	Ballast	.....	2	2
Kent	19	19.58	20	6.30	20	13.42	20	14.58	British.....	Federal Steam Navigation Co...	460.0	62.0	29.0	Liverpool.....	Auckland.....	General	6,064	10,507	8,132
Mundelta	20	0.10	20	6.42	20	14.23	20	17.29	American...	Mundelta Steamship Co.	378.0	53.2	15.0	Baltimore.....	Seattle.....	General	2,500	5,668	4,297
Andromede....	19	14.52	20	7.30	20	14.59	20	15.53	French.....	Messageries Navigation Co.....	450.8	57.2	20.7	Marseilles....	Noumea.....	General	2,904	7,984	5,472
Reiyo Maru....	20	1.05	20	7.35	20	15.17	20	20.17	Japanese....	Toyo Kisen Kaisha	400.0	53.0	22.0	New York....	Hongkong....	General	5,764	6,310	4,598
Atlantic	20	8.35	20	8.55	20	16.48	20	21.44	American...	Norton Lilly & Co	410.5	54.3	24.9	Baltimore.....	Los Angeles...	General, steel	7,606	6,567	4,917
San Ugon [1]	20	8.30	20	9.55	20	17.05	20	21.44	British.....	Eagle Oil Transport Co.	413.0	53.4	17.0	Rio de Janeiro.	San Pedro....	Ballast	.....	5,976	4,069
Hambleton Range	20	10.20	20	11.05	20	18.17	20	21.10	British.....	Neptune Steam Navigation Co.	350.3	51.1	16.0	Cardiff.....	Grays Harbor.	Ballast	.....	4,892	3,647
Ebro	19	20.05	20	13.50	20	20.46	21	0.06	British.....	Pacific Steam Navigation Co....	450.0	57.0	25.7	New York....	Valparaiso....	General	2,574	9,151	6,227
El Monticello..	19	2.25	21	6.14	21	13.26	21	14.22	Spanish.....	Cia General Navigacion	350.0	48.0	12.0	Calais.....	Arica.....	Ballast	.....	3,461	2,310
Almelo	19	23.05	21	6.16	21	14.31	21	15.39	Dutch.....	Royal Netherlands W. I. Mail...	440.0	62.6	21.0	Hamburg.....	Corral.....	General	4,282	9,403	6,653
Cnuky [1]	21	3.05	21	7.35	21	15.08	21	16.23	British.....	Sheridan Steamship Co.	440.8	56.0	27.2	Tampico.....	Tocopilla.....	Fuel oil	9,559	7,691	4,723
Anglo Egyptian	21	6.30	21	8.45	21	15.48	21	18.50	British.....	Nitrate Producers Co.	425.0	56.0	16.0	Newcastle....	Vancouver....	Ballast	.....	7,472	5,262
Narbo	21	6.35	21	9.20	21	17.25	21	18.50	American...	Tampa Interocean Co. (S. B.)...	402.6	53.0	23.0	New Orleans..	Manila.....	General	5,560	6,579	4,847
Julia Luckenbach	21	6.05	21	10.25	21	18.02	21	19.10	American...	Luckenbach Line	436.0	57.0	24.8	Boston.....	Seattle	General	5,487	8,543	6,402

[1] Tanker. [2] A. B. C. barge. [3] Mine planter. [4] Tug. [5] Launch.

Atlantic Sun [1]	21	9.50	21	10.40	21	18.51	21	19.46	American	Sun Oil Co	429.3	59.2	17.6	Baltimore	San Pedro	Ballast		7,568	5,283
Santa Elisa	21	10.53	21	12.25	21	19.40	22	14.15	American	Grace Line	360.3	51.7	24.8	New York	Talcahuano	General	1,985	5,957	4,325
George H. Jones [1]	21	22.55	22	6.30	22	20.16	22	21.25	American	Standard Oil Co	429.3	59.2	27.0	Tampico	Tocopilla	Crude oil	10,000	7,689	5,383
Kumeric	22	7.09	22	7.30	22	20.42	22	22.20	British	Andrew Weir & Co	460.0	55.0	27.8	Philadelphia	Manila	General, case oil	7,000	8,261	6,260
Cardiganshire	21	0.05	22	9.10	22	19.48	23	1.15	British	Royal Mail Steam Packet Co	500.0	62.4	21.8	Antwerp	Vancouver	General	4,905	11,420	8,385
Floridian	22	9.15	22	9.40	22	21.00	23	2.43	American	American-Hawaiian Line	415.0	53.7	18.10	Boston	Tacoma	General	3,449	7,273	5,105
Zenon	22	5.50	22	10.30	22	21.59	22	23.06	French	French Line	425.0	55.0	21.6	Havre	Vancouver	([8])	3,704	6,982	4,934
Wray Castle	22	6.10	22	11.00	22	22.48	23	2.23	British	Lancashire Shipping Co	419.2	55.8	26.1	New York	Shanghai	General	7,758	6,861	5,016
City of Brisbane	21	22.00	22	13.00	22	21.28	22	22.39	British	Ellerman Line, Ltd	463.0	58.0	22.6	New York	Brisbane	General	5,219	9,392	7,039
Ruapehu	22	15.25	23	6.20	23	17.28	24	0.45	British	New Zealand Shipping Co	457.0	58.0	24.11	London	Auckland	General	6,702	9,079	6,798
Franconia	23	3.35	23	6.35	23	19.54	24	2.15	British	Cunard Line	601.3	73.0	27.0	New York	San Francisco	Passengers only			
Atrato [6]	14	23.45	23	6.35	24	17.16			Colombian	Columbia Transport Co	94.2	24.0	6.0	Cristobal	Buenaventura	Ballast		160	77
Agwisea [1]	22	15.25	23	7.13	23	22.25	23	23.32	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	21.0	New York	San Pedro	Ballast		9,802	6,961
Ocean Prince	22	15.40	23	7.29	23	22.45	23	23.51	British	Rio Cape Line	410.0	52.0	16.0	Barry	Vancouver	Ballast		5,926	4,252
Chindwara	22	18.19	23	8.38	23	23.23	24	1.02	British	British-India Steam Nav. Co	400.0	53.0	24.0	New Orleans	Auckland	General, sulphur	6,099	5,817	4,266
Victorious	22	18.43	23	8.34	23	23.45	24	1.13	American	Tampa Interocean Co. (S. B.)	440.0	56.0	26.0	Galveston	Shanghai	General	6,897	8,328	6,036
Sumanco	22	20.05	23	9.45	24	1.0	24	2.15	American	Submarine Boat Corporation	324.0	46.0	24.0	Port Newark	San Pedro	General	4,500	3,984	2,612
Mineola	22	21.30	23	9.45	24	0.0	25	11.25	American	Grace Line	298.6	40.0	15.0	New York	Huacho	General	1,020	2,835	1,805
David McKelvy [1]	23	3.55	23	9.40	24	0.30	24	1.51	American	Tidewater Oil Co	430.0	59.2	21.0	New York	Los Angeles	Ballast		7,629	5,393
Orient	23	11.09	23	11.25	24	1.20	24	5.52	American	Oriental Navigation Co	376.0	52.3	24.6	Norfolk	San Diego	Coal	6,924	5,455	3,879
Agwismith [1]	23	17.40	24	6.30	24	17.56	24	18.56	American	Atl. Gulf & W. I. S. S. Co	499.9	68.1	21.0	New York	Los Angeles	Ballast		10,853	7,736
Peter Kerr	23	14.10	24	9.30	24	18.16	24	19.25	American	Columbia Pacific Steamship Co	415.0	55.7	19.6	New York	Seattle	General, steel	4,000	7,704	5,707
Cape Henlopen [1]	24	9.38	24	9.50	24	18.36	24	19.30	American	Cape Steamship Co	434.8	56.2	22.0	Bayonne	San Pedro	Ballast		7,425	5,202
Tacoma [7]	24	8.03	24	14.00	25	19.19			American	U. S. Navy	308.0	44.0	17.0	Port Arthur	Balboa	Ballast			

[1] Tanker. [6] Motor schooner. [7] Cruiser. [8] General and railroad material.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Glasgow Maru	17	14.45	18	6.31	18	14.35	18	15.20	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.6	Portland	Colon [10]	Wheat	7,843	6,213	4,665
Orita	18	1.00	18	8.06	18	15.50	18	23.40	British	Pacific Steam Navigation Co	485.0	58.2	26.6	Coronel	Liverpool	General	6,129	9,936	6,561
Willfaro	18	7.45	18	8.42	18	16.00	18	16.00	American	Williams Steamship Co	386.8	52.2	24.6	San Francisco	New York	General, lumber	6,526	5,681	4,113
J. A. Bostick [1]	18	8.15	18	9.24	18	17.05	18	17.05	American	Standard Oil Co	465.2	60.0	27.9	San Pedro	New York	Crude oil	11,800	8,511	5,981
Lillian Luckenbach	18	11.50	18	12.29	18	19.15	18	19.15	American	Luckenbach Line	448.9	60.2	28.0	Los Angeles	New York	General, lumber	6,500	9,294	6,865
Steelore	18	8.30	18	14.24	19	16.10	19	16.10	American	Ore Steamship Corporation	550.3	72.2	33.4	Cruz Grande	Baltimore	Iron ore	20,000	15,551	4,297
Acajutla	18	13.30	19	6.24	19	14.23	25	6.20	British	Pacific Steam Navigation Co	216.0	33.4	13.10	Champerico	Cristobal	General	362	1,273	706
Commercial Guide	18	14.30	19	6.53	19	16.55	19	16.55	American	Moore & McCormack, Inc	406.0	55.2	25.0	Seattle	New York	General	6,489		
Lorega	18	17.45	19	8.10	19	17.20	19	18.30	British	Pacific Steam Navigation Co	406.0	54.0	24.6	Callao	New York	General	6,587	7,331	5,091
Eastern Sea	18	23.30	19	9.20	19	18.20	19	20.08	American	U. S. & A. Lines	384.0	51.1	13.6	Melbourne	New York	General	590	5,934	4,415
S. B. Hunt [1]	19	12.30	19	13.14	19	21.30	20	6.22	American	Standard Oil Co. of N. J	429.3	59.2	28.0	San Pedro	New York	Crude oil	8,672	7,652	5,522
Willesden	19	12.45	19	13.49	19	22.42	20	8.00	British	Watts, Watts & Co	400.0	52.3	26.6	Antofagasta	Venice	Nitrate of soda	7,500	6,363	4,669
San Joaquin [1]	19	13.00	20	6.20	20	14.00	20	14.00	Norwegian	Union Oil Co. of California	425.4	57.1	26.0	San Pedro	Tampico	Gas oil	9,700	7,059	5,043
Canadian Constructor	19	12.45	20	7.32	20	14.35	20	14.35	British	Canadian Govt. Mer. Marine	430.0	56.1	18.6	Auckland	Halifax	General	900	7,680	5,494
Sudbury	19	15.30	20	8.47	20	15.45	20	15.45	American	United American Lines	384.8	51.2	22.0	San Pedro	New York	General	4,398	5,571	4,033
Honduras	20	0.05	20	12.28	20	20.00	20	20.00	French	French Line	387.1	51.4	25.0	Valparaiso	Havre	General	6,697	6,020	4,363

[1] Tanker. [10] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ansaldo San Giorgio I	20	7.15	20	14.23	20	22.05	20	22.45	Italian	Wells Saturna	385.7	49.0	27.3	Valparaiso	Genoa	General	7,462	5,657	3,974
Kroonland	21	3.30	21	8.28	21	16.05	21	22.14	American	Panama-Pacific Line	560.0	60.2	24.0	San Francisco	New York	General	375	13,514	9,127
Francis E. Powell [1]	21	0.01	21	9.02	21	17.05	21	17.05	American	Atlantic Refining Co.	431.0	59.2	27.0	San Pedro	Philadelphia	Gasoline	10,100	7,860	5,101
Sujerseyco	21	2.15	21	10.18	21	18.05	21	18.05	American	Transmarine Corporation	324.0	46.2	22.6	Seattle	New York	Lumber, salmon	3,400	3,984	2,612
Rotarian	21	3.05	21	10.35	21	19.15	21	21.35	American	Wessel Duval & Co. (S. B.)	380.3	53.1	23.8	Mejillones	New York	Nitrate of soda	6,753	5,660	4,059
Dakotan	20	23.10	21	11.35	21	19.15	21	19.15	American	American-Hawaiian Line	407.7	53.7	22.6	San Francisco	Boston	General	3,456	7,156	5,058
Garfield	21	3.15	21	12.17	21	20.10	22	10.20	American	Grace Line	299.4	45.0	16.8	Paita	New York	General	1,132	3,256	2,010
Bethore	21	4.10	21	14.05	24	0.30	24	2.10	American	Ore Steamship Corporation	550.3	72.2	32.8	Cruz Grande	New York	Iron ore	20,000	15,476	4,354
Piako	21	17.20	22	6.26	22	20.50	22	23.10	British	New England Shipping Co	450.0	58.2	22.4	Lyttleton	London	General	5,727	8,459	6,060
Bethelridge [1]	21	18.00	22	6.49	22	20.40	22	20.40	American	Walker & Daly (S. B.)	431.0	59.2	25.6	Los Angeles	New York	Crude oil	9,885	7,819	5,076
Toco [1]	21	23.00	22	7.42	22	21.20	22	23.55	British	Chile Steamship Co	440.8	56.0	15.0	Tocopilla	Tampico	Ballast		7,693	4,831
San Nazario [1]	22	4.30	22	8.23	24	1.32	24	3.30	British	Anglo-Mexican Petroleum Co	525.5	66.5	30.0	San Pedro	Tampico	Crude oil	15,544	12,158	8,463
Essequibo	22	9.30	22	11.33	22	21.55	23	10.55	British	Pacific Steam Navigation Co	450.3	57.8	24.6	Valparaiso	New York	([11])	4,050	9,099	6,117
Byron D. Benson [1]	22	3.50	22	11.27	22	22.30	22	22.55	American	Tidewater Oil Co. of N. Y.	465.4	60.2	26.6	San Pedro	New York	Crude oil	12,000	8,546	6,095
Gen. Geo. W. Goethals	22	15.47	23	6.30	23	21.40	25	6.05	American	Panama Railroad Steamship Line	353.0	48.7	21.0	Guayaquil	New York	([12])	507	5,226	3,617
Beaconlight [1]	22	18.05	23	7.12	23	22.28	23	22.28	American	Beacon Oil Co.	435.0	56.0	25.8	San Pedro	Boston	Crude oil	9,350	7,482	5,133
District of Columbia [1]	22	16.30	23	7.39	23	20.40	23	20.40	American	Walker & Daly (S. B.)	431.0	59.9	24.9	San Pedro	Fall River	Crude oil	9,600	8,097	5,431
Commercial Trader	23	0.15	23	7.58	23	21.40	23	21.40	American	Moore & McCormack, Inc.	399.0	51.0	26.0	Vancouver	New York	Lumber, general	5,816	6,190	4,455
Santa Barbara	23	5.30	23	8.45	23	20.10	23	21.00	American	Pacific Mail Steamship Co	404.6	53.9	19.8	San Francisco	Baltimore	General	3,948	6,789	4,746
Alaskan	23	5.15	23	9.18	24	0.48	24	0.48	American	American-Hawaiian Line	470.1	57.2	22.11	Los Angeles	Savannah	General	5,960	9,250	6,816
Steel Engineer	23	0.30	23	11.10	23	23.35	....	....	American	Isthmian Steamship Lines	424.2	56.2	24.8	Vancouver	Philadelphia	Lumber, general	6,890	7,611	5,450
Mevania [1]	23	1.30	23	11.54	24	2.05	24	20.20	American	C. D. Mallory & Co	425.8	57.0	27.0	San Pedro	New York	Oil in bulk	9,500	7,485	5,216
Durango [1]	23	12.30	24	6.39	24	19.45	24	20.35	American	C. D. Mallory & Co	435.0	56.0	27.8	San Pedro	New York	Crude oil	10,800	7,642	5,274
Lydia	23	12.31	24	6.58	24	18.30	24	18.30	American	Susquehanna Line	366.0	48.2	22.8	Grays Harbor	New York	([13])	4,700	4,620	3,337
San Valerio [1]	23	19.00	24	7.39	24	19.00	24	19.00	British	Eagle Oil Transport Co., Ltd.	420.0	54.3	26.0	San Pedro	Tampico	Crude oil	8,924	6,660	4,420
Harold Walker [1]	24	2.00	24	8.07	24	20.30	24	20.30	American	Pan-Amer. Pet. & Transp. Co.	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	10,700	6,973	4,658
Alda	24	5.45	24	8.56	24	20.45	24	22.20	German	Roland Line	360.6	51.0	23.0	Corral	Lands End	([14])	5,626	4,791	3,392
Mississipppi	24	11.05	24	11.57	24	21.50	24	22.55	French	French Line	410.0	52.4	26.0	Vancouver	Hull	General	7,609	6,942	5,001

[1] Tanker. [11] Copper, nitrates, sugar, etc. [12] Coffee, cocoa, tagua, hats, hides, and rubber. [13] Lumber, shingles, laths. [14] Saltpeter, bran, and cotton.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
November 18	Abangarez	United Fruit Co.	New Orleans via Habana.
November 18	Calamares	United Fruit Co.	Port Limon.
November 20	Pastores	United Fruit Co.	New York via Habana.
November 20	Yuma	Di Gorgio Fruit Co.	New Orleans.
November 20	Eupatoria	Hamburg-American Line	Hamburg via way ports.
November 20	Philadelphian	Leyland Line	Liverpool via wayports.
November 20	Esparta	United Fruit Co.	Boston, via Halifax and Habana.
November 21	Ulysses [15]	Panama Railroad Steamship Line.	Norfolk, Va.
November 21	Yuma	Di Gorgio Fruit Co.	High seas.
November 21	Sixaola	United Fruit Co.	New York via Kingston.
November 21	Agnes E [16]	Colon Import & Export Co.	Colon.
November 22	Abangarez	United Fruit Co.	Port Limon and Bocas del Toro.
November 22	Camden	United Fruit Co.	Houston, Tex.
November 23	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	New York via Haiti.
November 24	Bayano	Elders & Fyffes, Ltd.	Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
November 18	Stuyvesant	Royal Netherlands W. I. Mail	Amsterdam via wayports.
November 18	Calamares	United Fruit Co.	New York via Habana.
November 18	Abangarez	United Fruit Co.	Port Limon and Bocas del Toro.
November 19	Cristobal	Panama Railroad Steamship Line.	New York via Haiti.
November 20	Yuma	Di Gorgio Fruit Co.	San Blas coast.
November 21	Yuma	Di Gorgio Fruit Co.	San Blas coast.
November 21	Perou	French Line	St. Nazaire via wayports.
November 21	Pastores	United Fruit Co.	Port Limon.
November 21	Eupatoria	Hamburg-American Line	Port Limon.
November 22	Esparta	United Fruit Co.	Boston via wayports.
November 22	Sixaola	United Fruit Co.	Colombian ports.
November 22	Philadelphia	Leyland Line	Galveston.
November 22	Abangarez	United Fruit Co.	New Orleans.
November 24	Bayano	Elders & Fyffes, Ltd.	Bristol via Kingston.
November 24	Camden	United Fruit Co.	Baytown and Tampico.

[15] Collier. [16] Schooner.

PORT OF BALBOA.

November 18	Oreus	Wessel Duval & Co. (S. B.)	Caldera via Gatica.	November 18	Ginyo Maru	Toyo Kisen Kaisha	Valparaiso.
November 23	Ling Nam	Chungwa Navigation Co.	Hongkong.	November 18	Oreus	Wessel Duval & Co. (S. B.)	Tacoma.

*Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending November 24, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ginyo Maru	Toyo Kisen Kaisha	November 17.	November 18.	465	.....
Acajutla	Pacific Steam Navigation Co.	November 18.	November 19.	31	.....
Honduras	French Line	November 20.	November 20.	70	.....
Ebro	Pacific Steam Navigation Co.	November 20.	November 20.	14	.....
Ling Nam	Chungwah Navigation Co.	November 24.	.....	280	8
Colombia	Pacific Mail Steamship Co.	November 24.	.....	195	.....
Mineola	Grace Line	November 24.	November 24.	.....	47

Admission of Persons Liable to Become Public Charges.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., November 24, 1923.

CIRCULAR NO. 714-2.

By virtue of authority contained in Section 11, Executive Order of February 6, 1917, as amended by Executive Order of September 13, 1923, which empowers the Governor of The Panama Canal to make rules and regulations to carry out the provisions of that Order, paragraph 1 of Circular No. 714, dated April 25, 1917, is amended by adding the following:

"Quarantine officers are hereby authorized to require from the person or interest responsible for the entry of persons liable to become public charges:

(*a*) A sum of money equal to the return passage of any such person liable to become a public charge, plus a reasonable amount to cover cost of detention while awaiting deportation;

(*b*) A lump sum of $500 to be maintained at that amount;

(*c*) An unlimited return trip ticket and cash deposit to cover cost of maintenance prior to deportation; or

(*d*) A bank guarantee or other bond acceptable to the Collector of The Panama Canal.

Such deposits to be made with the Collector of The Panama Canal and disbursed by him for the purpose for which they are intended, upon order of a Quarantine officer.

JAY J. MORROW,
Governor.

Official Circular.

Reduced Rates on Luckenbach Line.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., November 24, 1923.

To all concerned—The Luckenbach Lines are inaugurating a passenger service between New York and Los Angeles and San Francisco, commencing with the steamship *Jacob Luckenbach*, sailing from New York on November 28, 1923, and arriving at Cristobal on December 5.

Wilford & McKay, the local agents, advise they are authorized to offer the following special rates to employees of the Canal and railroad between the Isthmus and the California ports: Adults, $100; children over 2 years and under 12 years, one-half fare; one child under 2 years, free; each additional child under 2 years, one-fourth fare. Baggage allowance, 350 pounds per passenger, children in proportion.

Employees desiring the special rates must secure the usual transportation request from the Executive Office.

C. A. MCILVAINE,
Executive Secretary.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., December 5, 1923. No. 17.

Traffic in November, 1923.

The number of commercial transits through the Panama Canal during November, 1923, was 436. In addition to commercial transits there were 10 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 25 transits of Government vessels, making the total transits for the month 471. The daily average of the commercial transits was 14.53 and daily average total transits 15.7.

Tolls for the month aggregated $2,058,188.61 on the 436 commercial transits and $39 on the 10 launches, making a total of $2,058,227.61. The amount of tolls collected in November, 1923, on commercial traffic $2,058,188.61, ranks next to that of July, 1923, $2,124,830.02, which is the highest since the opening of the Canal.

Daily average collection of tolls for November, 1923, on all traffic was $68,607.59, and daily average on commercial traffic only was $68,606.29. The average daily collection of tolls was the highest since the opening of the Canal. That in July, 1923, was $68,542.90.

Detail of the month's traffic, segregated by directions, is as follows:

	Vessels.				Tolls.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches.	Total.
Atlantic to Pacific....	231	9	13	253	$1,017,841.39	$36.00	$1,017,877.39
Pacific to Atlantic....	205	1	12	218	1,040,347.22	3.00	1,040,350.22
Totals.....	436	10	25	471	2,058,188.61	39.00	2,058,227.61

The following tabulation shows the monthly totals, and the daily averages of transits and tolls during the current calendar year, for commercial vessels only:

	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
January.....	352	$1,505,285.55	11.35	$48,557.60
February.....	326	1,423,954.21	11.64	50,855.51
March.....	409	1,827,718.44	13.20	58,958.66
April.....	404	1,878,938.15	13.47	62,631.27
May.....	419	1,972,216.04	13.52	63,619.87
June.....	417	1,898,259.08	13.90	63,275.30
July.....	474	2,124,830.02	15.29	68,542.90
August.....	454	2,050,656.97	14.65	66,150.22
September.....	413	1,902,453.61	13.77	63,415.12
October.....	427	1,988,607.69	13.77	64,148.63
November.....	436	2,058,188.61	14.53	68,606.29
Totals, first 11 months.....	4,531	20,631,108.37	.....	.....
Averages, first 11 months.....	.....	.....	13.53	61,769.79

The average amount of tolls paid by each commercial vessel transiting the Canal during the month of November, 1923, was $4,720.62.

Traffic Through Canal in First Four Months of Fiscal Year.

In the following tabulation is shown the intercoastal traffic for the first 4 months of the fiscal years beginning July 1, 1922, and 1923, together with the total traffic through the Canal for the same periods.

The large increase in traffic through the Canal being in a great part due to the development of the oil fields of southern California, tankships transiting the Canal with Los Angeles as their port of origin or destination are shown as a separate item:

Four months (July, August, September, and October.)	No. of ships.	Panama Canal net tonnage.	Tolls.	Cargo tonnage.
Intercoastal traffic, 1922	252	1,264,694	$1,205,206.84	1,393,573
Total traffic, 1922	1,042	4,592,806	4,425,036.72	4,961,101
Intercoastal traffic, 1923	864	4,780,290	4,335,302.60	4,869,373
Total traffic, 1923	1,768	8,626,644	8,066,548.29	8,802,804
Tankships showing Los Angeles as port of origin or destination, 1923	578	3,400,499	2,994,558.40	3,256,203
Total tankships through Canal, 1923	657	3,880,657	3,452,768.34	3,776,435

In the following tabulation are given the percentages indicated by the above table. It will be noted that total traffic through the Canal shows substantial increases in all items:

Four months (July, August, September, and October.)	No. of ships.	Panama Canal net tonnage.	Tolls.	Cargo tonnage.
Per cent of increase of 1923 intercoastal traffic over 1922 intercoastal traffic	242.86	277.96	259.71	249.42
Per cent of increase 1923 total traffic over 1922 total traffic	69.67	90.05	82.29	77.43
Proportion of intercoastal traffic to total traffic, 1922 (per cent)	24.18	27.53	27.23	28.09
Proportion of intercoastal traffic to total traffic, 1923 (per cent)	48.86	54.77	53.74	55.31
Per cent of increase, total traffic, exclusive of tank ships to or from Los Angeles	14.20	15.97	14.62	11.80
Percentage of increase, intercoastal traffic exclusive of tankships to or from Los Angeles	13.09	9.10	11.24	15.75

From the above tables it is seen that the development of the southern California oil fields is largely responsible for the heavy increase in traffic through the Panama Canal during the current calendar year but that other traffic than that in oil is showing steady and healthy growth in both total and intercoastal traffic.

Large Shipment of Fresh Fruit Through the Canal.

On November 25, 1923, the steamship *Nichteroy* of the Royal Mail Steam Packet Co. transited the Panama Canal, carrying 3,700 tons of cargo from north Pacific ports to the British Isles.

Comprising the larger part of this cargo was 163 tons of fresh apples from Vancouver, B. C.; 2,955 tons of fresh apples, 87 tons of fresh oranges, and 8 tons of fresh prunes from the west coast of the United States. The balance of the cargo was 30 tons of dried fruit, 201 tons of canned goods, mostly fruit, 30 tons of peas, 195 tons of lumber, and 31 tons of general cargo from the west coast of the United States.

The *Nichteroy* has 25 insulated cargo chambers with a total refrigerating capacity of 434,850 cubic feet.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended December 3:

Steamships: *Ulysses*, renew copper suction pipe to feed pump and steam pipe to heaters under bridge; repair plumbing; clean fire room bilges; manufacture two beam clamps, two condenser tube cleaners, draft numbers and two sets of galley stove rings; scale and cement wash topside tanks, etc.; *Steel Engineer*, renew hull plates, etc., where damaged; repair wood work on bridge of poop deck, etc.; *Acajutla*, dock, clean, and paint bottom; repair steering engine, hand pump, mattresses, sanitary pump, sounding pipe for No. 2 tanks, gangways, ports, galley stove, scupper, accommodation ladder and water cans; manufacture one tarpaulin, three iron air cones, and pintle bushing, etc.; oil barge *No. 96*, dock, clean, and paint; renew two chocks, loose rivets in hull and fenders all around; test all tanks and repair same; install patches on top and bottom corners and four angles for fenders on each end of barge, etc.; steamship *General W. C. Gorgas*, manufacture new ash chute; furnish machinists to assist in retubing main condenser; repair deck steam pipes, 3 heater pipes, bulkhead in ash bunker, rudder chains, No. 3 winch, leaks in shell plating, air ports, hatch ladder, and scuppers; install sounding pipes No. 3 tanks; patch bulkheads in holds, etc.; dredge *Mexico*, dock, clean, and paint; renew ash chute, brick work in galley stove; repair plumbing, galley funnel, electric wiring, lifeboat, and davit; manufacture one set fire bars for boiler, 3 covers for stokehold hatch; two skylight covers, lifeboat cover, awning for after deck, bridge awning, and 3 slings; fit two bunks in after cabin, etc.; steamship *City of Para*, repair main engine, heater coils, fuel oil pump, anchor windlass, uptake, galley stack; renew tubes in boiler as directed; manufacture new sink for galley, etc.; water barge *No. 170*, dock, clean, and paint; install two new chocks, 4 angles for fenders at each end of barge and fender angles around top of barge; renew all loose rivets, 4 bitts and fenders all around; test and repair all tanks; patch 8 corners, top and bottom; plug holes in deck, etc.; steamship *Salvador*, repair refrigerating pipes, accomodation ladder gangway rails, side ports, and shell plating; manufacture sail for lifeboat, lifeboat mast, and hatch tarpaulin; install fusible plugs in boiler; straighten winch shaft and install new clutch and keys to suit, etc.;

Minor repairs—Steamships *Pastores*, *Cardiganshire*, *Peter Kerr*, *Camden*, *Lancaster*, *Van Rensellaer*, *Cacique*, *Jamaica*, *Corinto*, and *Bennekom*; motorships *Atrato* and *Lobos*; schooners *Arabia* and *Agnes E.*; and tug *Relief*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 1, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Acajutla	Pacific Steam Navigation Co		November 25.		1,085
Cartago	United Fruit Co	November 25.	November 25.	1,000	171
Pastores	United Fruit Co	November 25.	November 25.	10	74
Colombia	Pacific Mail Steamship Co	November 25.	November 26.	197	42
Nichteroy	Pacific Steam Navigation Co	November 25.	November 26.	(1)	126
Bologna	Italian Line	November 25.	November 27.	(1)	483
Salvador	Pacific Steam Navigation Co	November 26.		208	
Lobos	Pacific Steam Navigation Co	November 26.		(1)	496
Van Rensellaer	Royal Netherlands W. I. Mail	November 26.	November 27.	356	5
E. T. Bedford	Standard Oil Co	November 26.	November 27.	12,360	(2)
Cacique	Pacific Mail Steamship Line	November 26.	November 28.	186	384
Ulua	United Fruit Co	November 27.	November 28.	157	169
San Benito	United Fruit Co	November 27.	November 28.	35	298
Gen. W. C. Gorgas	Panama Railroad Steamship Line		November 28.		696
Laura C. Hall	Pacific Metals Corporation	November 27.	November 29.	(3)	128
Jamaica	Pacific Steam Navigation Co	November 27.	December 1.	416	521
Saint Joseph	French Line	November 27.	November 28.	120	(2)
Manuel Arnus	Spanish Line	November 28.	November 29.	105	173
Cartago	United Fruit Co	November 28.	November 28.	2½	½
Suriname	United Fruit Co	November 28.	November 29.	716	344
Carrillo	United Fruit Co	November 28.	November 29.	165	409
Corinto	Pacific Mail Steamship Line	November 28.		583	
Sixaola	United Fruit Co	November 29.	November 29.	2	56
Van Rensellaer	Royal Netherlands W. I. Mail	November 29.	November 30.	(1)	343
Aconcagua	Chilean Line	November 30.	November 30.	1	250
Santa Clara	Grace Line	November 30.	November 30.	8	(2)
Youma	Vaccaro Brothers	November 30.	November 30.	(1)	214
Ecuador	Pacific Mail Steamship Co	December 1...	December 1...	329	(2)
Canada	Johnson Line	December 1...	December 1...	92	(2)

[1] No cargo discharged. [2] No cargo laded. [3] 41 pounds.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 1, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day	Hour.								Nature.	Tons.	Gross.	Net.
Jethou	24	17.35	25	6.20	25	17.22	25	18.30	Norwegian.	W. Wilhelmsen	370.0	50.0	13.0	New Orleans	Portland	Ballast		4,765	3,561
Acajutla	19	14.23	25	6.20	25	16.46	25	21.27	British	Pacific Steam Navigation Co	215.0	33.5	16.5	Cristobal	Champerico	General	1,082	1,273	706
San Gasper [1]	24	20.50	25	7.30	25	17.56	25	19.10	British	Eagle Oil Transport Co	530.0	68.6	23.0	Tampico	San Pedro	Ballast		13,422	9,350
William Campion	25	2.15	25	8.32	25	18.30	25	22.36	American	Garland Steamship Corporation	384.4	51.2	27.0	Galveston	San Francisco	Sulphur	7,920	6,327	4,433
Saint Dunstan	25	9.20	25	9.42	25	18.50	26	0.18	British	Rankin Gilmour & Co	400.0	53.0	14.0	Liverpool	Coos Bay	Ballast		5,880	4,111
Japan Arrow [1]	25	10.30	25	11.00	25	19.30	25	22.20	American	Standard Transportation Co	468.3	62.7	20.0	New York	San Pedro	Ballast		10,084	7,426
T. J. Williams [1]	25	11.35	25	11.50	25	20.00	26	0.40	American	Standard Oil Co	465.4	60.2	21.9	Montreal	San Pedro	Ballast		8,585	6,087
Fairfield City	25	21.05	26	6.20	26	18.05	26	19.02	American	U. S. Steel Products Co	424.2	56.2	26.0	Philadelphia	Manila	Steel products	7,852	7,611	5,450
Hallfried [2]	25	21.25	26	7.40	26	18.54	26	19.49	Norwegian.	A. S. Rederiel Odfjell	376.3	51.6	15.0	Belfast	San Francisco	Ballast		5,651	4,114
Bradclyde	25	21.35	26	8.30	26	17.27	26	18.34	British	W. R. Smith & Son	399.6	53.0	15.6	Liverpool	Vancouver	Ballast		5,883	4,118
Circinus	26	7.40	26	9.30	26	19.48	26	23.54	American	Planet Steamship Corporation	410.0	54.0	25.0	New York	Vancouver	General	7,800	6,585	4,791
Peg O' My Heart [3]			26		26	12.07			American	A. de Leon				Cristobal	Gatun Lake	Ballast		1	1
Tuxpanoil [1]	26	16.00	27	6.25	27	18.30	27	19.30	American	McAllister Brothers (S. B.)	431.0	59.2	19.0	New York	San Pedro	Ballast		7,862	5,049
Sithonia	26	15.05	27	6.30	27	18.08	27	20.55	British	H. M. Thomson	420.3	56.0	16.6	Genoa	Puget Sound	Ballast		6,753	4,823
Miller County [1]	26	19.55	27	7.20	27	18.57	27	20.00	American	Sun Oil Co	431.0	52.9	18.6	Philadelphia	San Pedro	Ballast		7,780	5,220
New Britain	27	0.01	27	7.50	27	17.54	27	22.38	American	Great Northwestern Shipping Co	386.6	52.0	18.6	New York	Seattle	General	4,350	5,681	4,082
Oak Branch	27	5.35	27	8.37	27	19.36	28	7.43	British	F. & W. Ritson	398.0	49.9	18.0	Liverpool	Coronel	General	3,500	5,209	4,035
Scottish American [1]	27	7.25	27	9.05	27	19.54	28	10.34	British	Tankers Limited	425.0	57.0	24.0	Rotterdam	San Pedro	Creosote	8,329	7,080	5,127
Seattle Maru	27	8.17	27	9.50	27	20.44	27	21.56	Japanese	Osaka Shosen Kaisha	410.0	51.0	25.0	Buenos Aires	Yokohama	General	3,545	6,226	4,118
E. T. Bedford [1]	26	10.47	27	11.03	27	20.20	27	21.37	American	Standard Oil Co	499.2	68.1	18.0	Tampico	San Pedro	Ballast		11,009	7,967
Tricolor	27	11.20	27	11.40	27	21.04	27	22.20	Norwegian.	W. Wilhelmsen	351.0	50.0	15.0	Newport News	Grays Harbor	Ballast		4,483	3,293
Cacique	26	20.55	28	6.15	28	18.43	28	19.48	American	Grace Line	394.2	52.3	22.4	Baltimore	San Francisco	General	4,781	6,652	4,913
J. L. Luckenenbach	27	20.18	28	6.30	28	18.17	28	19.12	American	Luckenbach Line	448.9	60.2	23.6	Boston	San Pedro	General	6,000	9,294	6,861
Mina Brea [1]	28	4.35	28	7.35	28	19.54	29	1.38	British	Imperial Oil Co	360.0	49.0	18.0	Montreal	Talara	Ballast		4,437	2,717
British Monarch	27	23.50	28	9.05	28	19.12	29	0.15	British	Monarch Steamship Co	420.6	54.0	15.0	Dartmouth	San Pedro	Ballast		6,716	4,872
Havre Maru	28	9.50	28	10.00	28	20.06	28	21.16	Japanese	Kokusai Kisen Kaisha	400.0	53.0	14.0	Norfolk	Grays Harbor	Ballast		5,886	4,284
Jupiter	27	21.20	28	11.40	28	20.51	28	21.51	Spanish	Comp. Anonima Maritime	389.2	52.1	14.0	St. Vincent	Arica	Ballast		5,223	3,994
Saint Joseph	27	23.00	28	11.55	28	20.16	28	21.12	French	French Line	397.0	51.0	16.10	Havre	Valparaiso	General	590	5,979	4,170
Johan Ludvig Mowinckel	28	6.38	28	12.10	28	21.34	28	22.30	Norwegian.	Olaf Orvig	314.0	46.6	12.2	Cartagena	Comax	Ballast		3,046	2,149
W. S. Rheem [1]	28	15.00	29	6.27	29	17.43	29	18.52	American	Standard Oil Co	500.0	68.2	23.0	New York	Los Angeles	Ballast		11,224	7,895
Laura C. Hall [4]	27	22.18	29	6.25	29	19.02	30	8.00	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	100	132	72
Dillwyn [1]	28	16.25	29	6.33	29	18.17	29	19.17	American	Malston & Co	435.0	56.0	15.0	Baltimore	San Pedro	Ballast		7,441	5,180

[1] Tanker. [2] Motor ship. [3] Launch. [4] Motor schooner.

Hemisphere	28	15.08	29	7.33	29	18.38	29	19.46	British	H. D. Dillion & Sons	385.0	52.0	16.0	Cardiff	Grays Harbor	Ballast		5,238	3,748
Royal Star	28	19.35	29	7.20	29	17.20	30	1.29	British	Blue Star Line	450.0	58.5	19.0	Boston	Tacoma	Ballast		8,561	5,815
Manchuria	29	6.40	29	8.25	29	16.20	29	23.36	American	Panama Pacific Line	600.0	65.3	23.0	New York	San Pedro	General	1,229	17,044	11,488
Scottish Castle [1]	28	20.25	29	8.35	29	19.06	29	20.07	British	Tankers Limited	440.0	57.4	17.0	New Orleans	San Francisco	Ballast		7,532	5,162
Santa Cecilia	28	18.55	29	9.30	29	19.31	29	20.45	American	Planet Co	404.6	53.0	28.0	Baltimore	Los Angeles	Steel, general	8,596	6,745	4,562
Delagoa Maru	29	5.25	29	9.47	29	19.54	29	21.07	Japanese	Nippon Yusen Kaisha	420.0	56.0	27.4	New York	Yokohama	(8)	8,274	7,249	5,171
S. M. Spalding [1]	29	6.25	29	11.05	29	20.22	29	21.34	American	Pan-American Petroleum Co	435.0	56.0	19.6	Boston	San Pedro	Ballast		7,331	5,111
Cuba [5]			29	10.40	29	13.03			Panaman	M. Cohen				Cristobal	Gatun Lake	Ballast		1	1
Port Albany	29	12.52	30	6.20	30	17.11	30	19.09	British	Commonwealth & Dom. Line	426.3	51.0	24.0	New York	Adelaide	General	5,809	7,596	5,261
Portsaid Maru	29	12.58	30	6.20	30	17.59	30	19.12	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	New York	Kobe	General	6,993	5,914	4,399
Algonquin [1]	29	17.40	30	7.35	30	18.18	30	19.40	American	Standard Transportation Co	435.0	56.0	18.6	New York	San Pedro	Ballast		7,602	5,337
Iowan	29	22.50	30	7.45	30	17.06	30	21.05	American	American-Hawaiian Line	407.7	53.7	18.6	Boston	Los Angeles	General	3,209	7,091	5,002
Belgium Maru	30	2.30	30	8.20	30	19.18	1	7.46	Japanese	Kabushiki Kisen Kaisha Line	385.0	51.0	20.0	Baltimore	San Antonio	Coke	4,050	6,219	4,663
Sachsen	30	1.05	30	8.30	30	19.14	1	7.46	German	Hamburg-American Line	464.0	57.7	21.0	Hamburg	Vancouver	General	5,601	9,624	6,732
Agwimex [1]	30	8.08	30	9.15	30	19.34	30	22.27	American	Atl. Gulf & W. I. S. S. Co	480.0	66.0	22.0	Baltimore	San Pedro	Ballast		9,394	6,306
Suboatco	30	9.33	30	9.45	30	20.02	1	7.46	American	Transmarine Corporation	324.0	46.2	25.0	Newark	San Pedro	General	4,650	3,984	2,612
Eleonore	30	7.20	30	12.25	30	20.23	1	10.53	German	Balfour Guthrie & Co	350.0	43.0	24.0	Glasgow	San Pedro	General	4,411	3,852	2,717
Seekonk [6]	30	12.35	30	12.55	30	20.40	30	21.43	American	United American Lines	401.0	54.0	16.0	New York	Los Angeles	General	2,200	6,162	4,463
Aconcagua	30	6.00	30	13.10	30	21.07	30	22.15	Chile	Chilean Line	422.8	56.2	23.0	New York	Valparaiso	General	1,379	7,758	4,705
Curlew [7]			30	6.50	30	13.17			American	U. S. Navy				Cristobal	Balboa	Ballast			
Dagfred	30	13.15	1	6.25	1	18.49	1	19.50	Norwegian	John Pedersen & Son	400.6	52.9	14.6	Liverpool	Los Angeles	Ballast			
Jamaica	27	22.15	1	7.18	1	19.33	1	22.10	British	Pacific Steam Navigation Co	220.0	34.0	11.5	Cristobal	Buenaventura	General	523	1,187	622
Munaires	30	22.40	1	7.45	1	19.19	1	20.18	American	Munson Line	370.0	53.0	18.6	New York	Seattle	General	2,550	5,577	4,225
East Wind	1	2.10	1	8.35	1	18.38	2	0.10	American	U. S. & A. Lines (S. B.)	384.0	51.0	25.0	New York	Adelaide	General, case oil	6,310	5,966	4,442
Sally Maersk [6]	1	6.25	1	9.35	1	20.19	1	22.19	Danish	A. P. Moller	332.0	44.0	20.6	Pto. Mexico	Penang	Asphalt	4,158		
Canada [6]	1	5.05	1	10.40	1	20.24	2	5.08	Swedish	Johnson Line	440.0	56.0	22.0	Gothenborg	San Francisco	General	6,558	7,476	5,456
Bengal Maru	1	7.33	1	10.55	1	20.51	1	22.10	Japanese	Nippon Yusen Kaisha	400.0	54.0	21.0	New York	Yokohama	(9)	5,839		
Nile	1	6.40	1	12.05	1	21.19	2	1.20	British	Glen & Co	421.0	56.0	14.0	Norfolk	Tocopilla	Ballast			
Ecuador	1	6.15	1	13.05	1	21.45	2	19.57	American	Pacific Mail Steamship Co	360.6	24.7	23.0	New York	San Francisco	General	2,979	5,926	4,178

[1] Tanker. [5] Launch. [6] Motor ship. [7] Tug. [8] Machinery, iron, cotton, and general. [9] Machinery, hogshead, tobacco, iron columns, cotton, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Drechtdijk	24	12.45	25	6.35	25	18.44	25	18.44	Dutch	Holland-American Line	485.4	62.0	29.6	Seattle	Rotterdam	(11)	9,750	10,793	7,619
Colombia	24	5.30	25	6.55	25	18.39	26	12.00	American	Pacific Mail Steamship Co	380.0	48.7	22.6	San Francisco	New York	General	2,309	6,015	4,281
Sinaloa	24	14.15	25	7.10	25	20.10	25	20.10	Norwegian	Cuyamee Fruit Co	265.5	38.5	17.0	Vancouver	Santiago, Cuba	Lumber	1,150	1,908	1,121
Bologna	24	15.45	25	11.10	25	20.15	27	3.40	Italian	La Veloce Line	384.9	46.7	21.0	Valparaiso	Genoa	General	1,858	5,531	3,774
Nictheroy	25	0.30	25	11.08	25	20.05	26	13.05	British	Royal Mail Steam Packet Co	450.5	58.3	20.6	San Francisco	London	General	3,700	8,874	6,558
Glenshane	25	11.59	26	6.27	26	19.30	27	0.05	British	Glen Line	412.4	55.8	27.3	Ocean Island	Sweden	Phosphate	8,500	6,596	4,602
Lobos	25	0.40	26	6.43	26	20.58	27	21.00	British	Pacific Steam Navigation Co	404.7	54.2	25.8	Talcahuano	London	General	7,612	7,151	4,756
San Fabian [1]	25	23.00	26	7.58	26	21.45	26	21.45	British	Anglo-Mexican Petroleum Co	530.5	69.4	31.0	San Pedro	Tampico	Crude petroleum	17,610	13,551	9,614
Indien	25	23.15	26	8.05	26	19.20	26	19.20	Danish	Dupont	399.7	53.2	28.0	Mejillones	New Orleans	Nitrates	8,750	6,173	4,418
Matinicock [1]	26	7.55	26	8.50	26	21.55	26	21.55	American	Standard Oil Co. of N. J.	459.1	60.0	25.7	San Pedro	New York	Crude oil	9,800	8,171	6,014
W. M. Irish [1]	26	8.09	26	9.44	26	22.35	26	22.35	American	Atlantic Refining Co	435.0	56.0	27.0	San Pedro	Philadelphia	Gasoline	10,000	7,392	5,453
Curlew [10]			26	10.05	26	19.25	30	6.59	American	U. S. Navy				Balboa	Cristobal				
Salvador	26	8.10	26	11.10	26	20.50			British	Pacific Steam Navigation Co	225.0	35.4	12.0	Champerico	Cristobal	(12)	208	1,270	735
Wabash	26	10.30	26	11.17	26	23.45	26	23.45	American	N. Atl. & Western S. S. Co	381.0	49.9	25.7	Seattle	Portland	Lumber, general	4,293	5,825	4,152
Santa Teresa	26	11.43	26	12.49	26	23.10	27	1.10	American	Grace Line	360.2	51.6	24.6	Antofagasta	New York	(13)	4,230	5,726	4,086
Agwihavre [1]	26	11.47	27	6.41	27	21.00	27	21.00	American	Ward Line	480.5	66.0	29.0	Los Angeles	New York	Crude oil	12,763	9,394	6,305

[1] Tanker. [10] Tug. [11] Grain, fruit, general. [12] Coffee, indigo, and wood. [13] Copper, nitrate, sugar, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Indiana	26	13.00	27	6.48	27	20.25	27	20.25	French	French Line	417.8	55.9	26.9	Vancouver	Havre	[15]	7,549	7,157	4,936
Robert Luckenbach	26	13.05	27	7.10	27	19.10	27	19.10	American	Luckenbach Line	445.0	58.0	26.0	Tacoma	Boston	General, lumber	9,000	8,695	6,314
Marore	27	5.15	27	7.46	27	19.45	27	19.45	American	Ore Steamship Corporation	550.3	72.2	34.0	Cruz Grande	Baltimore	Iron ore	19,000	15,551	4,297
John D. Rockefeller [1]	26	15.30	27	8.44	27	21.20	27	21.20	American	Standard Oil Co. of N. J.	458.0	60.0	26.0	San Pedro	New York	Crude oil	10,788	8,633	6,314
Miskianza [1]	26	18.15	27	8.57	27	22.55	27	22.55	American	Walker & Daly (S. B.)	425.0	57.2	26.0	San Pedro	New York	Crude oil	8,764	7,205	4,897
Jamaica	27	6.20	27	9.27	27	22.15	1	7.18	British	Royal Mail Steam Packet Co	229.0	33.10	12.2	Tumaco	Cristobal	General	614½	1,187	622
Laura C. Hall	26	20.35	27	11.32	27	22.18	29	6.25	British	Pacific Metals Corporation	81.0	25.6	9.10	Buenaventura	Cristobal	Platinum	[20]	132	72
Manuel Arnus	27	12.30	28	6.29	28	15.45	29	12.55	Spanish	Cia Trasatlantica	434.4	56.9	25.0	Valparaiso	Barcelona	General	884	7,732	5,518
Frederic R. Kellogg [1]	27	13.08	28	6.50	28	18.50	28	18.50	American	Huasteca Petroleum Co	425.8	57.0	27.6	San Pedro	New Orleans	Crude oil	10,171	7,178	4,963
Guardian	27	14.45	28	7.13	28	18.00	28	20.55	American	All-America Cable Co., Inc	278.4	36.6	16.0	Callao	Port Limon	Ballast		1,860	950
San Francisco Maru	27	16.20	28	7.34	28	20.28	28	20.28	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Tocopilla	New York	Copper ore	8,405	6,245	4,704
K. I. Luckenbach	27	16.45	28	8.10	28	19.15	28	19.15	American	Luckenbach Line	446.0	56.1	31.0	Seattle	Mobile	General	8,000	8,552	6,236
Republic	27	19.45	28	8.25	28	21.10	28	21.10	American	Chile Steamship Co., Inc	345.1	49.1	24.0	Antofagasta	Cristobal [14]	[16]	6,031	4,393	3,006
Chester Sun [1]	27	21.50	28	9.08	28	19.55	28	19.55	American	Sun Oil Co	429.3	59.2	27.6	San Pedro	New York	Crude oil	10,500	7,684	5,411
A. C. Bedford [1]	28	0.01	28	10.00	28	22.25	28	22.25	American	Standard Oil Co. of N. J.	500.0	68.0	29.6	San Pedro	New York	Crude oil	15,000	10,896	7,688
Apple Branch	28	5.00	28	11.54	28	22.45	29	6.30	British	Nautilus Steamship Co	376.0	51.6	23.6	Mejillones	Liverpool [14]	[17]	5,925	5,112	3,511
W. L. Connelly [1]	27	23.30	28	11.12	28	21.55	28	21.55	American	Sinclair Navigation Co	304.0	44.2	15.6	Corinto	Tampico	Ballast		3,214	2,326
Corinto	27	19.09	28	11.41	28	22.00	2	12.40	American	Pacific Mail Steamship Co	261.1	40.0	19.0	San Francisco	Cristobal	[18]	582	2,352	1,549
Cerro Ebano [1]	28	6.00	28	12.57	28	23.05	28	23.05	American	Pan-American Pet. Transp. Co	480.5	66.0	28.2	San Pedro	New Orleans	Crude oil	13,729	9,389	6,453
San Dunstano [1]	28	15.45	29	6.48	29	19.30	29	19.30	British	Eagle Oil Transport Co	420.0	54.5	26.0	Martinez	London	Benzine	8,116	6,376	4,465
W. W. Mills [1]	28	5.00	29	6.58	29	18.00	29	18.50	American	Pure Oil Steamship Co	424.4	58.3	27.6	San Pedro	Mareus Hook	Crude oil	10,600	7,333	5,119
Hellenic	28	17.40	29	7.19	29	20.20	29	21.50	Swedish	Transatlantic Steamship Co	380.0	52.0	25.6	Makatea	Gothenborg	Phosphate	7,000	5,501	3,972
Arizonan	29	3.00	29	7.42	29	18.20	29	18.20	American	American-Hawaiian Line	470.2	57.2	21.0	Seattle	Boston	General	3,500	9,140	6,684
Clan Kennedy	29	4.30	29	8.14	29	21.10	30	0.20	British	Clan Line	400.0	52.0	23.5	Paagoumene	Glasgow	General	7,500	5,469	4,042
H. M. Storey [1]	29	5.00	29	8.39	29	21.25	29	21.25	American	Standard Oil Co	500.0	68.2	29.1	Los Angeles	New York	Crude oil	16,200	11,224	7,849
J. M. Danziger [1]	29	14.00	30	6.20	30	18.20	30	18.20	American	Pan-American Petroleum Co	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	10,000	6,963	4,886
Santa Clara	29	19.10	30	6.33	30	17.55	30	20.35	American	Pacific Mail Steamship Co	404.6	53.9	18.6	San Francisco	New York	General	2,400	6,760	4,450
Hampton Roads [1]	30	7.30	30	8.29	30	21.05	1	12.10	American	McAllister Bros. (S. B.)	431.0	59.2	26.0	San Pedro	Boston	Crude oil	10,000	8,093	5,541
Robin Goodfellow	30	8.00	30	9.00	30	19.10	30	19.10	American	Robin Line Steamship Co	424.8	55.2	24.0	Honolulu	Philadelphia	Lumber, general	6,100	7,473	5,536
Canadian Winner	30	11.06	30	12.01	20	20.30	30	22.10	British	Canadian Government	400.0	52.2	25.6	Vancouver	Glasgow	[19]	7,050	5,885	4,073

[1] Tanker. [14] For orders. [15] Wheat preserves. [16] Nitrate and copper bars. [17] Nitrate and cotton. [18] General, coffee, hides, logs. [19] Grain, lumber, spelter, general. [20] 41 pounds.

Diana Dollar...	30	17.43	1	6.37	1	20.23	1	20.23	American...	Robert Dollar Line.....	429.0	55.0	25.0	San Francisco.	New York....	(21)	6,929	7,582	5,521
Steel Trader...	30	16.30	1	6.45	1	19.18	1	19.18	American...	Isthmian Steamship Lines.....	442.2	56.2	26.0	San Francisco.	New York....	General.....	7,000	7,611	5,450
K. R. Kingsbury [1].....	30	20.15	1	7.45	1	21.36	1	21.36	American...	Standard Oil Co. of N. J.....	440.0	58.2	31.0	Los Angeles...	New York....	Crude oil.....	11,000	9,033	5,938
West Calera....	30	23.55	1	7.52	1	21.15	1	21.15	American...	Swayne & Hoyt (S. B.).....	410.5	54.0	20.0	Portland.....	Buenos Aires..	General.....	5,000	6,617	4,931
Chilore.....	30	17.45	1	8.42	1	20.15	1	22.00	American...	Ore Steamship Corporation.....	549.6	72.2	33.0	Cruz Grande..	Baltimore.....	Iron ore.....	20,100	14,538	9,348
M. F. Elliott [1].	1	6.00	1	8.56	1	22.08	1	22.08	American...	Standard Oil Co. of N. J.....	425.0	57.2	29.0	San Pedro....	New York....	Crude oil.....	10,000	7,481	4,946
Birkenhead [1]...	1	7.44	1	9.41	1	22.55	1	22.55	American...	Vacuum Oil Co.....	425.0	57.2	28.0	San Pedro....	Bayonne.....	Crude oil.....	10,000	7,502	4,982
D. G. Scofield [1].....	1	8.14	1	10.04	1	23.25	1	23.25	American...	Standard Oil Co. of N. J.....	439.5	58.0	30.0	Los Angeles...	New York....	Crude oil.....	11,500	8,698	6,040
Kermit.....	1	3.30	1	11.18	1	23.59	1	23.59	American...	United American Lines.....	471.1	59.1	26.6	Seattle.....	Hamburg.....	General.....	9,100	9,032	6,655

[1] Tanker. [21] Lumber, coconut oil, tea, and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
November 25	Cartago.....	United Fruit Co.....	New Orleans via Habana.
November 25	Pastores.....	United Fruit Co.....	Port Limon.
November 26	Van Renselaer.....	Royal Netherlands W. I. Mail.....	Amsterdam via wayports.
November 27	San Benito.....	United Fruit Co.....	Boston via Habana.
November 27	Ulua.....	United Fruit Co.....	New York via Habana.
November 27	Relief [22].....	Merritt & Chapman Wrecking Co.	Kingston via Bluefields.
November 28	Suriname.....	United Fruit Co.....	New Orleans via Habana.
November 28	Cartago.....	United Fruit Co.....	Bocas del Toro.
November 28	Carrillo.....	United Fruit Co.....	New York via Kingston.
November 28	Steel Engineer.....	U. S. Steel Products Co.....	High Seas.
November 29	Sixaola.....	United Fruit Co.....	Colombian ports.
November 29	Van Renselaer.....	Royal Netherlands W. I. Mail..	Port Limon.
November 30	Yuma.....	Di Gorgio Fruit Co.....	San Blas coast.
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

*DEPARTURES.

Date.	Vessel.	Line.	For—
November 25	Ulysses.....	Panama Railroad Steamship Line..	Norfolk.
November 25	Pastores.....	United Fruit Co.....	New York via Habana.
November 25	Cartago.....	United Fruit Co.....	Bocas del Toro.
November 27	Van Renselaer.....	Royal Netherlands W. I. Mail.....	Port Limon.
November 28	Gen. W. C. Gorgas..	Panama Railroad Steamship Line..	New York via Haiti.
November 28	San Benito.....	United Fruit Co.....	Boston via Port Limon.
November 28	Cartago.....	United Fruit Co.....	New York.
November 28	Ulua.....	United Fruit Co.....	Port Limon.
November 28	Agnes E. [23].....	Colon Import & Export Co.....	Colon.
November 28	Steel Engineer.....	U. S. Steel Products Co.....	Philadelphia.
November 29	Carrillo.....	United Fruit Co.....	Colombian ports.
November 29	Suriname.....	United Fruit Co.....	New Orleans via wayports.
November 29	Sixaola.....	United Fruit Co.....	New York via Kingston.
November 30	Van Renselaer.....	Royal Netherlands W. I. Mail.....	Amsterdam via wayports.
November 30	Yuma.....	Di Gorgio Fruit Co.....	New Orleans.
November 30	Relief [22].....	Merritt & Chapman Wrecking Co.	Kingston.

[22] Tug. [23] Schooner.

PORT OF BALBOA.

November 25	Santa Maria [1].....	Union Oil Co. of California.....	Port San Luis.	November 26	Santa Maria [1].....	Union Oil Co. of California.....	Port San Luis.
November 30	Romulus.....	A. O. Lindvig.....	Puget Sound.	November 29	Ling Nan.....	Chungwa Navigation Co.....	Callao.
December 1..	Eastern Gale.....	General Steamship Corp. (S. B.)...	Valparaiso.	.....	.....	.....	.....

[1] Tanker. * Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 1, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Atrato	Colombia Transport Co.	November 23.			135
Atrato	Colombia Transport Co.	November 23.			135
Santa Maria	Santa Maria Steamship Co.	November 26.	November 27.	10,500	
Laura C. Hall	Pacific Metals Corporation	November 26.	November 27.	20½	
Jamaica	Pacific Steam Navigation Co.	November 27.	November 27.	2	6
Corinto	Pacific Mail Steamship Co.	November 27.	November 28.	58	
Romulus	A. O. Lindvig	November 30.		646	
Canada	Johnson Line			211	

Prices of Miicellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective November 20, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.24
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.50
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, $0.50 per year; foreign, $1.00; address The Panama Canal Record, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., December 12, 1923. No. 18.

Record Week's Traffic Through Canal.

During the week from December 2d to the 8th, inclusive, there were 52 transits of the Canal from the Pacific to the Atlantic and 72 from the Atlantic to the Pacific, a total of 124 transits. In this number are included one United States government vessel from the Pacific to the Atlantic, and two small launches and 4 United States government vessels from the Atlantic to the Pacific, leaving 117 commercial transits for the week. This is a daily average of commercial transits of 16.71 and on all transits of 17.71 and is believed to be the largest week's business since the opening of the Canal.

The Panama Canal net tonnage for the week was 622,323 tons, tolls collected $571,665.45, and cargo carried 646,499 tons. Daily averages for the week were: Net tonnage, 88,903 tons, Panama Canal measurement; tolls, $81,666.49; cargo carried, 92,357 tons. At such a rate, traffic in a month of 31 days would amount to 518 commercial vessels, $2,531,661.19 in tolls, and 2,863,067 tons of cargo.

Reduction in Charges for Quarantine Service.

Supplement No. 3 to Tariff No. 7, published in this issue amends the charges for quarantine service. The most important changes are reduction in charges for fumigation of vessels and the abolition of charges for night inspection of vessels up to 10 p. m. The tariff provided previously a charge of $15 for labor and supervision in the fumigation of vessels under 1,000 net tons, and $25 for vessels of 1,000 net tons of over, with additional charges for the material used. Supplement No. 3 authorizes a charge of actual cost, plus 10 per cent. It is believed that this basis makes it possible for ships to receive this service at Canal Zone ports more cheaply than anywhere else in the world. Fumigation at Balboa and Cristobal has been systematized to a point at which it is accomplished with maximum efficiency, rapidity and safety.

The Quarantine Division of The Panama Canal has adopted cyanogen chloride as the standard fumigant, after considerable experimentation. This is an efficient gas for ridding ships of rats and other vermin; it is not destructive to metals, fabrics, or food; and it is a lachrymatory gas like the "tear gas" used during the World War. Through the latter property it gives ample warning of its presence and reduces to the minimum the danger to human beings.

The abolition of charges for inspection on the night of arrival, if the vessel arrives prior to 10 p. m. from ports not subject to yellow-fever quarantine (previously $40 for passenger vessels and $20 for other vessels), is a worthwhile saving to ships. Moreover, ships inspected the night before will be ready to transit the Canal promptly the next morning and will thus use in passage through the Canal during daylight hours which otherwise would be consumed in quarantine inspection.

Tanker Traffic Through the Panama Canal in November, 1923.

The number of tankships transiting the Canal during the month of November, 1923, was 145. This is 9 less than the month of October and 14 less than the month of September. Tankers comprised about 33 per cent of the total number of vessels through the Canal in November, about 39 per cent of the Panama Canal net tonnage, and carried about 43 per cent of the total cargo.

The following tabulation shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during November, 1923, segregated by nationality of vessels and direction of transit:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	7	35,889	$29,571.58	17,888
Dutch	1	4,395	3,164.40	.....
Norwegian	1	5,520	3,974.40	.....
United States	53	306,412	225,538.56	20,938
Totals, November, 1923	62	352,216	262,248.94	38,826
Totals, October, 1923	83	500,686	373,769.67	67,738
Totals, September, 1923	70	403,550	300,127.25	41,023
Pacific to Atlantic.				
British	13	79,921	84,208.03	127,542
Dutch	1	5,521	5,801.25	9,268
Norwegian	1	5,043	5,522.50	9,700
United States	68	405,751	419,314.74	762,482
Totals, November, 1923	83	496,236	514,846.52	908,993
Totals, October, 1923	71	424,846	438,672.42	803,194
Totals, September, 1923	89	521,953	544,243.53	982,297

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
November, 1923	55	322,453	$234,590.95	8,329
October, 1923	71	438,156	316,678.35	.....
September, 1923	57	341,605	247,448.41	.....
From Los Angeles.				
November, 1923	75	457,676	479,966.05	870,855
October, 1923	67	407,398	421,704.10	780,082
September, 1923	82	481,630	504,616.25	926,479

Transit of the Steamship "Jacob Luckenbach" Carrying Passengers.

On December 6, 1923, the steamship *Jacob Luckenbach* of the Luckenbach Line transited the Canal carrying cargo and passengers from New York to Los Angeles and San Francisco. This is the initial trip of this vessel carrying passengers between the east and west coasts of the United States. The *Jacob Luckenbach* is the only one of the vessels of the Luckenbach Line operating through the Canal which carries passengers at this time, but will be in this service regularly. When accommodations are available, passengers may be booked from Canal ports.

Hamburg-American Line Passenger Service.

On December 16 the Hamburg-American Line will dispatch from Cristobal to Europe via Caribbean ports the steamship *Tsad*, the first passenger ship employed by the company in this service since the war. The Hamburg-American Line resumed its freight services in this part of the world early in 1922, since when, in addition to its Caribbean Line, which also serves the east coast of Central America as far north as Guatemala, it has been operating freight steamers through the Panama Canal to the west coast of Central and South America. The dispatch of the steamship *Tsad* marks the partial resumption of its prewar passenger service.

Visit of French Cruiser "Jeanne d'Arc."

The French cruiser *Jeanne d'Arc*, commanded by Capt. Bourdoncle de Saint Salvy arrived at Cristobal on November 30. After coaling and taking on supplies the *Jeanne d'Arc* proceeded through the Canal on December 2 and docked at Balboa. Capt. Bourdoncle de Saint Salvy had been appointed by his government Special Envoy to the Republic of Panama with the rank of Ambassador to assist at the dedication of the monument to the French canal builders erected on the Plaza de Francia in Panama. There were appropriate ceremonies in this connection on December 4, and there were the usual official receptions and exchanges of visits. Before leaving Balboa the French Ambassador and a party of officers from the *Jeanne d'Arc* paid an unannounced and informal visit to the Administration Building at Balboa Heights for the purpose of placing a wreath bound in the tricolor at the foot of the tablet commemorating those employees of the Panama Canal who lost their lives in the World War. The *Jeanne d'Arc* cleared for San Francisco on December 6.

Supplement No. 3.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., December 4, 1923.

ITEM 13.—QUARANTINE.
(Effective December 4, 1923.)

1. Subsistence, etc., in quarantine, per day:	
For cabin passengers	$3.00
For enlisted men, Army and Navy	1.50
For steerage passengers	1.00
2. Guards for ships passing through the Canal in quarantine:	
For each quarantine guard	40.00
For each quarantine officer	50.00
3. Fumigation of vessels: Actual cost plus 10 per cent.	

(NOTE—Night quarantine service. Inspection on night of arrivals, if vessel arrives prior to 10 p. m. from ports not subject to yellow fever quarantine, will be made without charge in the future.

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 8, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Jeanne d'Arc [2]	30	9.20	2	6.13	2	13.29	6	7.40	French	French Government	475.0	56.0	.....	Brest	San Francisco	Ballast	.....	.....	.....
J.A.Moffett,Jr. [1]	1	22.40	2	6.35	2	14.20	2	15.21	American	Standard Oil Co	500.0	68.1	20.0	New York	San Pedro	Ballast	.....	11,037	7,995
Lancaster	24	18.15	2	7.10	2	18 17	.....	.....	American	Lancaster Steamship Co	435.0	57.6	26.0	New York	Seattle	General	9,382	7,943	5,872
Guardian [3]	1	12.57	2	7.50	2	15.27	3	4.51	American	All-America Cable Co	278.0	36.0	18.1	Port Limon	Balboa	Ballast	.....	1,860	950
H. H. Rogers [1]	2	1.15	2	8.30	2	16.30	2	17.35	American	Standard Oil Co	500.0	68.0	18.0	New York	San Pedro	Ballast	.....	10,333	7,475
Walter Jennings [1]	2	8.18	2	9.27	2	16.57	2	20.47	American	Standard Oil Co	499.2	68.0	20.0	New York	San Pedro	Ballast	.....	11,037	7,995
Palm Branch	2	10.55	2	10.40	2	17.37	2	17.12	British	F. and W. Ritson	360.0	45.0	20.6	Antwerp	Valparaiso	General	2,063	4,195	3,088
Elmshorn	2	10.05	2	11.00	2	18.27	2	19.30	German	German-Australian S. S. Co	378.0	54.0	22.0	Antwerp	Valparaiso	General	5,000	5,965	4,288
George Washington [4]	2	11.05	2	11.25	2	19.01	4	3.36	Norwegian	Peter Olsen	425.0	54.0	22.0	Brevik	Seattle	General	5,393	7,505	5,627
Athenic	1	17.22	2	12.00	2	19.31	2	20.47	British	White Star Line	500.0	63.0	27.0	London	Wellington	General	5,300	12,896	9,571
Alvarado	2	11.57	2	12.40	2	20.16	2	23.03	American	Pacific Transport Co	245.0	41.5	16.6	New Orleans	Seattle	General	2,100	2,122	1,504
Corinto	28	22.00	2	12.40	2	19.59	3	8.24	American	Pacific Mail Steamship Co	261.0	40.0	15.8	Cristobal	San Francisco	General	1,675	2,352	1,549
Duendes	2	4.50	2	13.30	2	20.51	2	22.30	British	Pacific Steam Navigation Co	390.0	50.0	23.0	Glasgow	Corral	General	3,247	6,006	4,287
City of Manila	2	23.50	3	6.25	3	19.28	3	20.45	British	Ellerman Lines, Ltd	475.0	58.2	28.0	New York	Yokohama	General	10,297	9,677	7,504
Margaret Dollar	2	15.22	3	7.08	3	19.24	3	21.45	American	Dollar Line	429.0	55.2	18.0	New York	San Francisco	Canned goods	2,440	7,579	5,527
Waimana	2	16.15	3	8.33	3	18.35	3	19.54	British	Shaw, Savill & Albion	476.0	63.0	27.6	London	New Plymouth	Gen., dynamite	6,962	11,229	8,252
Charles Pratt [1]	3	0.30	3	9.55	3	20.02	3	21.13	American	Standard Oil Co	500.0	68.0	18.6	New York	San Pedro	Ballast	....	10,313	7,492
Nuddea	2	17.00	3	10.27	3	20.31	3	22.08	British	British-India Steam Nav. Co	461.0	58.0	29.0	New York	Melbourne	General	8,510	8,249	5,440
Cape Ann [1]	3	8.00	3	10.40	3	20.58	3	22.08	American	Cape Steamship Co	425.8	57.0	21.6	New York	San Pedro	Ballast	.....	7,484	5,216
James McGee [1]	3	12.25	3	12.40	3	21.18	3	23.25	American	Standard Oil Co	499.1	68.2	21.0	New York	San Pedro	Ballast	.....	10,964	7,909
President Hayes	3	5.50	3	13.20	3	22.31	3	23.50	American	Swayne & Hoyt (S. B.)	502.1	62.2	28.8	Buenos Aires	San Francisco	General	5,570	12,023	8,443
Roy [5]	1	.....	3	.....	3	21.57	.....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Ballast	.....	2	2
Narenta	3	15.25	4	6.25	4	18.28	5	7.25	British	Royal Mail Steam Packet Co	450.0	58.0	18.0	London	Vancouver	General, spirits	1,000	8,856	6,559
J. N. Pew [1]	3	17.08	4	6.25	4	19.19	4	20.27	American	Sun Oil Co	480.5	66.0	21.0	Chester	San Pedro	Ballast	.....	9,494	6,612
Edgemoor [6]	3	20.20	4	7.25	4	19.40	5	13.54	American	U. S. Army	409.0	54.2	22.9	Brooklyn	Manila	Army supplies	6,210	7,486	5,852
San Silvestre [1]	4	7.25	4	8.00	4	18.49	4	20.00	British	Eagle Oil Transport Co	420.5	54.6	26.3	Tampico	Valparaiso	(7)	8,150	6,588	4,546
Santa Rosalia	4	4.40	4	8.40	4	20.18	4	21.26	American	U. S. Steel Products Co	406.0	52.6	22.0	New York	Talcahuano	General	4,600	5,900	4,423
Dixie Arrow [1]	4	8.00	4	9.10	4	20.23	4	21.31	American	Standard Transportation Co	468.3	62.7	22.0	Providence	San Pedro	Ballast	.....	9,744	7,140
John Worthington [1]	4	4.45	4	9.25	4	21.05	4	22.00	American	Standard Oil Co	462.0	60.0	18.6	New York	San Pedro	Ballast	....	8,491	6,096
Wiegand	4	6.55	4	9.58	4	21.17	4	22.17	German	Roland Line	408.0	54.0	20.0	Hamburg	Corral	General	3,278	6,573	4,629
Sicania	3	8.45	4	10.55	4	21.54	4	23.00	Italian	La Veloce Line	354.4	45.0	20.0	Genoa	Valparaiso	General	621	4,500	3,523
Gothic Prince	4	10.40	4	11.15	4	22.09	5	11.05	British	Prince Line, Ltd	448.1	57.2	28.0	Philadelphia	Saigon	General	9,843	9,082	6,701
Halsey [1]	4	12.30	4	12.45	4	23.05	4	12.00	American	Malston Line	435.0	56.0	18.0	New York	San Pedro	Ballast	.....	7,642	5,324
John D. Archbold [1]	4	12.15	4	13.06	4	23.09	5	0.02	American	Standard Oil Co	554.9	75.3	22.0	New York	San Pedro	Ballast	.....	14,785	10,313

[1] Tanker. [2] Cruiser. [3] Cable ship. [4] Motor ship. [5] Launch. [6] Transport. [7] Fuel oil and greases.

General O. H. Ernst	2	22.20	5	6.15	5	13 05	5	14.53	American	Panama Railroad Steamship Line	356.4	45.3	20.0	New York	Guayaquil	General	1,375	4,503	2,764
Cornwall	4	18.10	5	6.50	5	15.10	5	16.05	British	Federal Steam Navigation Co	495.0	63.0	31.7	Liverpool	Auckland	General	9,917	11,766	7,876
Norman Monarch	4	23.40	5	9.10	5	15.45	5	16.51	British	Raeburn & Verel	400.6	52.0	14.7	Norfolk	Antofagasta	Ballast		5,568	4,146
Santa Luisa	5	13.18	5	13.40	5	19.54	5	23 49	American	Grace Line	360.0	51.6	23.0	New York	Talcahuano	General	2,238	5,694	3,975
Mobile City	5	13.40	5	13.50	5	21.10	6	2.24	American	U. S. Steel Products Co	395.0	55.0	27.6	New York	Tacoma	General, steel	8,440	7,330	5,241
Huguenot [1]	5	17.10	6	6.20	6	13.46	6	15.50	American	McAllister Brothers (S. B.)	434.8	56.0	20.0	New York	Los Angeles	Ballast		7,394	5,099
Steel Voyager	5	17.16	6	6.20	6	14.59	6	15.50	American	U. S. Steel Products Co	395.6	55.0	27.0	Mobile	Kobe	General	8,900	7,285	5,256
Jacob Luckenbach	5	17.23	6	7.10	6	15.08	6	16.58	American	Luckenbach Line	420.0	53.0	22.0	New York	San Francisco	General	5,600	7,315	5,270
Tiger	5	21.48	6	7.33	6	15.33	6	16.25	American	Standard Transportation Co	410.0	56.0	16.0	New York	Portland	Ballast		8,243	6,317
Panaman	6	16.18	6	8.30	6	15.50	6	20.19	American	American-Hawaiian Line	407.7	53.7	14.10	Boston	Portland	General	3,250	7,098	5,029
Commercial Spirit	6	7.18	6	8.45	6	16.27	6	22.10	American	Moore & McCormack, Inc	380.4	53.1	15.0	Norfolk	Tacoma	General	3,080	5,659	4,138
Rio Bueno	6	2.30	6	9.48	6	17.02	7	1.05	Chilean	Lloyds Chileno	261.0	38.0	16.0	Hamburg	Valparaiso	General	2,268	2,336	1,504
Author	5	13.46	6	11.08	6	17.45	6	18.43	British	Harrison Line	423.0	53.0	22.7	Liverpool	Tacoma	General	5,918	6,382	4,614
Muskogee [1]	6	9.50	6	11.20	6	18.37	6	23.39	American	Standard Oil Co	449.6	57.9	19.05	Ponce	San Pedro	Ballast		7,574	5,193
Santa Tecla	5	19.40	6	11.53	6	20.09	7	2.40	American	Grace Line	298.6	40.0	20.10	New York	Pto. Chicama	General	2,257	2,832	1,803
Ivernia	6	3.40	6	11.55	6	23.41	7	10.07	Swedish	Svenska Lloyd	274.0	41.0	16.3	New Orleans	Talcahuano	General	1,061	2,243	1,479
Lena Luckenbach	6	2.30	6	12.28	6	20.34	6	21.56	American	Luckenbach Line	425.0	53.8	29.0	Galveston	Seattle	General	8,600	7,217	5,295
Spreewald [8]	6	12.23	7	6.22	7	15.06	7	16.30	German	Hamburg American Line	399.0	54.0	19.0	Hamburg	Valparaiso	General	2,689	6,791	4,997
Samuel Q. Brown [1]	6	19.18	7	6.30	7	15.34	7	16.48	American	Tidewater Oil Co	424.4	58.2	19.0	New York	San Pedro	Ballast		7,333	5,246
J. A. Bostwick [1]	6	19.50	7	7.40	7	16.17	7	17.17	American	Standard Oil Co	465.0	60.0	20.0	New York	Talara	Ballast		8,511	5,981
Cape Cod [1]	6	21.15	7	8.00	7	16.28	7	19.28	American	Cape Steamship Co	425.0	57.0	20.0	New York	San Pedro	Ballast		7,218	4,955
Alaska Maru	7	1.40	7	8.50	7	17.30	7	18.30	Japanese	Osaka Shosen Kaisha	420.0	56.0	28.5	New York	Hongkong	General	8,888	7,775	5,641
Acme [1]	7	2.45	7	8.35	7	17.02			American	Standard Transportation Co	435.0	56.0	19.0	New York	Los Angeles	Ballast		7,165	4,926
West Greylock	7	5.40	7	9.45	7	17.59	7	19.01	American	Seas Shipping Co	430.7	54.3	29.0	New York	San Francisco	General, steel	9,686	7,946	5,698
Agwisun [1]	7	11.25	7	11.40	7	18.57	7	19.56	American	Atl. Gulf & W. I. S. S. Co	429.3	59.2	17.8	Baltimore	San Pedro	Ballast		7,612	5,402
Trontolite [1]	7	11.45	7	11.58	7	20.43	7	22.06	British	Imperial Oil Co	420.8	57.0	29.0	Mata Redondo	Pisagua	Crude oil	9,600	7,249	4,713
Naimes	7	1.20	7	13.15	7	20.55	7	22.06	German	Roland Line	330.0	46.2	16.6	Bremen	Mazatlan	General	1,660	3,529	2,532
Apurimac	6	21.03	7	13.25	7	21.50	7	23.00	Peruvian	Peruvian Line	382.0	48.2	21.3	New York	Callao	General, cattle	1,232½	4,867	3,544
No. 2136 [9]	6		7		7	13.46			Panaman	M. Flores				Cristobal	Gatun Lake	Unknown		2	2
O-3 [10]			7	7.50	7	16.17			American	U. S. Navy	172.4	18.0		Cristobal	Balooa	Ballast			
O-7 [10] [9]			7	7.50	7	16.17			American	U. S. Navy	172.4	18.0		Cristobal	Balboa	Ballast			
Salvador	26	20.50	8	6.07	8	13.38	8	15.55	British	Pacific Steam Navigation Co	215.0	33.5	17.0	Cristobal	Champerico	General	1,237	1,270	735
Guide [11]	7	16.40	8	6.30	8	14.13			American	U. S. Government	183.0	35.0	12.0	New London	San Diego	Ballast			
Toco [1]	7	20.52	8	7.23	8	15.45	8	17.25	British	Sheridan Steamship Co	440.0	56.0	28.0	Tampico	Tocopilla	Crude oil	9,866	7,693	4,831
George G. Henry [1]	8	5.00	8	9.10	8	16.23	8	17.25	American	Pan-American Petroleum Co	435.0	56.0	20.0	Boston	San Pedro	Ballast		7,221	4,988
American	8	8.50	8	10.10	8	18.07	8	19.06	American	American-Hawaiian Line	406.8	51.1	26.8	Philadelphia	San Pedro	General	6,563	5,918	4,113
Keelung	8	8.30	8	11.45	8	18.56	8	20.00	British	Ellerman & Bucknall Line	400.4	52.0	26.6	New York	Kobe	General	6,859	6,237	4,537
Amersfoort	7	12.35	8	12.55	8	20.20	9	12.47	Dutch	Royal Dutch Steamship Co	482.6	62.7	21.6	Hamburg	Corral	General	5,694	10,083	6,844

[1] Tanker. [8] Motor ship. [9] Cayuca. [10] Submarine. [11] Survey ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Bennekom	1	13.10	2	7.17	2	17.10	3	14.20	Dutch	Royal Netherlands W. I. Mail	466.0	58.3	26.0	Talcahuano	Havre	(15)	8,382	7,742	5,628
Blue Triangle	2	10.00	2	10.49	2	18.10	2	18.10	American	North Atl. & We-t. S. S. Co	390.0	54.2	22.6	Los Angeles	Philadelphia	Lumber, general	6,000	6,209	4,317
Wheaton	2	12.30	2	13.15	2	20.55	2	20.55	American	A. E. Mittnacht (S. B.)	415.0	53.7	21.0	Seattle	New York	Refrigerated gen.	2,268	7,060	4,901
Fred W. Weller [1]	2	20 50	3	6.24	3	19.50	3	19.50	American	Standard Oil Co. of N. J.	500.0	68.0	29.0	San Pedro	New York	Crude oil	16,000	10,928	7,710
Gargoyle [1]	2	16.00	3	6.50	3	19.03	3	19.03	American	Vacuum Oil Co	425.0	57.2	27.4	San Pedro	Philadelphia	Gasoline	9,500	7,510	4,989
Dominion Miller	2	17.25	3	7.15	3	18.34	3	18.34	British	Furness, Withy & Co	420.0	54.0	26.6	Vancouver	London	Canned goods.	7,600	6,996	5,306
Gulfqueen [1]	2	21.55	3	7.32	3	20.50	3	20.50	American	Gulf Refining Co	419.5	56.5	23.0	San Pedro	Philadelphia	Gasoline	8,609	6,899	5,029
Mount Carroll	3	3.35	3	7.59	3	20.15	3	20.15	American	United American Lines	449.3	57.2	24.3	Portland	New York	General	6,200	8,095	5,666
Agwibay [1]	3	5.00	3	9.15	3	21.32	3	21.32	American	New York & Cuba Mail S. S. Co	468.3	62.7	27.6	San Pedro	Baltimore	Crude oil	12,500	9,776	6,903
Hugoton [1]	3	7.15	3	9.45	3	22.10	3	22.10	American	C. D. Mallory & Co	434.0	56.0	28.0	San Pedro	Baton Rouge	Crude oil	10,551	7,429	5,175
Standard [1]	3	8.05	3	10.33	3	23.10	3	23.10	American	Standard Oil Co. of N. J.	523.8	68.6	31.6	San Pedro	New York	Crude oil	17,000	12,171	8,782
W. F. Burdell [1]	3	8.55	3	10.47	3	23.10	4	1.53	American	Pure Oil Steamship Co	435.0	56.0	28.0	San Pedro	Philadelphia	Crude oil	10,513	7,433	5,693
F. Q. Barstow [1]	3	11.50	3	12.38	3	23.50	3	23.55	American	Standard Oil Co. of N. J.	500.0	62.0	30.0	San Pedro	New York	Crude oil	14,830	10,530	7,604
Lima [12]	3	21.45	4	6.55	4	18.28	4	22.22	Swedish	Johnson Line	364.1	51.5	24.0	San Francisco	Stockholm	(16)	5,599	5,304	3,909
Edward L. Doheny, Jr. [1]	4	4.00	4	8.12	4	19.36	4	19.36	American	Pan-Amer. Pet. & Transp. Co	467.6	62.1	29.6	San Pedro	New Orleans	Crude oil	13,249	9,655	7,166
Huallaga	4	2.00	4	8.55	4	18.47	7	8.13	Peruvian	Peruvian Line	360.0	44.7	22.6	Callao	Cartagena	Sugar	1,982	4,514	2,386
Suwarineo	4	4.00	4	9.20	4	19.25	4	19.25	American	Transmarine Corporation	324.0	46.2	23.6	Westport	New York	Lumber	3,910	3,984	2,612
Utacarbon [1]	4	4.00	4	10.09	4	21.15	5	2.40	American	Union Oil Co. of California	435.0	56.0	27.0	San Pedro	New York	Crude oil	11,200	7,482	5,209
Edward Luckenbach	4	9.20	4	10.18	4	20.52	4	20.32	American	Luckenbach Line	436.6	57.2	26.6	Portland	Boston	General, lumber	5,188	8,543	6,427
Tulsagas [1]	4	6.00	4	11.08	4	22.20	5	1.50	American	McAllister Bros. (S. B.)	431.0	59.2	24.0	San Pedro	Fall River	Tops oil	9,335	7,817	5,048
W. E. Hutton [1]	4	1.15	4	11.39	4	21.52	4	21.52	American	Pure Oil Steamship Co	435.0	56.0	27.6	Los Angeles	Philadelphia	Crude petroleum.	10,397	7,482	5,209
Putney	4	10.45	4	12.20	5	23.35	5	0.55	British	Watts, Watts & Co	340.2	45.0	22.0	Antofagasta	Fayal [14]	Nitrates	4,700	3,519	2,588
Radames	4	12.30	5	6.13	5	14.15	5	23.40	German	Kosmos Line	409.7	50.5	23.2	Corral	Antwerp	General	5,250	4,912	3,428
Missourian [13]	4	16.00	5	7.29	5	14.15	5	14.15	American	American-Hawaiian Line	445.0	59.8	21.0	Seattle	Boston	General	4,900	8,567	6,020
Borga [13]	4	21.00	5	8.27	5	17.30	5	17.30	Norwegian	Norway-Pacific Line	362.4	51.4	25.0	Portland	Norway	General	6,200	5,212	3,706
Irene S. Wilkinson [13]	23	14.30	5	9.24	5	18.15	.....	.....	American	Howard Lumber Co	187.3	38.0	17.4	San Miguel	New Orleans	Lumber, logs	1,150	866	730
Finland	4	18.30	5	11.09	5	18.20	5	18.20	American	Panama-Pacific Line	560.0	60.2	23.0	San Francisco	New York	General	2,150	13,559	9,016
Toba Maru	5	8.50	5	13.20	5	20.40	6	6.05	Japanese	Nippon Yusen Kaisha	445.0	58.0	11.0	Osaka, Japan	New York	General	1,273	8,058	5,743
William G. Warden [1]	5	12.39	5	14.15	5	22.20	5	22.20	American	Standard Oil Co. of N. J.	500.0	68.2	19.9	Los Angeles	New York	Crude oil	15,039	10,524	7,600
Robin Adair	5	2.00	5	14.50	5	22.55	5	22.55	American	Seas Shipping Co	424.8	55.2	22.6	Seattle	New York	(17)	6,834	7,470	5,529
Toluma	5	19.15	6	6.24	6	16.50	6	18.05	Norwegian	Grace Line	417.0	54.0	27.0	Punta Arenas	New York	General	8,253	7,176	5,219
Loch Goil	5	20.45	6	7.27	6	17.15	7	16.55	British	Royal Mail Steam Packet Co	485.6	52.3	27.9	Seattle	Rotterdam	General	8,555	10,833	7,606
unin	6	4.00	6	7.47	6	18.00	7	15.25	British	Pacific Steam Navigation Co	391.5	50.2	23.0	Valparaiso	London	General	5,668	5,933	4,282

[1] Tanker. [12] Motor ship. [13] Sail boat. [14] For orders. [15] Nitrate, borate, and general. [16] Wheat, fruit, and general. [17] Lumber, canned goods, and general.

Cathwood [1]	5	22.05	6	10 37	6	18.23	6	18.23	American	Union Oil Co. of California	435.0	56.0	28.0	Los Angeles	Baltimore	Crude oil	11,000	7,482	5,143
G. Harrison Smith	6	14.30	7	6.23	7	16.10	7	16 10	Canadian	International Petroleum Co	550.2	72.6	33.3	Cruz Grande	New York	Iron ore	20,000	15.476	10.751
Atlantic Maru	6	13.45	7	7.24	7	17.45	7	18.38	Japanese	Kawasaki Steamship Co	385.0	51.0	26.11	Mejillones	Colon	Nitrate of soda	8,420	6,251	4.709
Oropesa	6	22.30	7	8.28	7	17.45	7	23.05	British	Pacific Steam Na igation Co	530.0	66.3	29.6	Punta Arenas	Liverpool	General	7,222	14,510	10,230
Antinous	7	4.30	7	9.19	7	18.25	8	11.20	French	Messageries Maritimes	419.0	56.0	21.0	Noumea	Dunkirk	General	3,950	7,643	5,364
Rhine Maru	7	5.50	7	10.07	7	19.30	8	0.35	Japanese	Kawasaki Dockyard Co	405.0	53.0	27.11	Mejillones	Colon [20]	Nirtate of soda	9,150	7,044	5,136
Governor	7	3.00	7	11.13	7	19.20	7	19.20	British	T. & J. Harrison	410.3	52.2	27.0	San Francisco	London	Wheat, general	7,060	6,683	4,775
Balboa	7	10.30	7	11.41	7	19.43			Colombian	Compania Costernia Colombia	190.0	29.1	14.6	Tumaco	Cristobal	General	500	737	335
Curlew [18]			7	6.36	7	13.15			American	U. S. Navy				Balboa	Cri tobal				
Podah [19]			7	7.13	7	11.54			American	L. V. Steven	39.1	10.0	6.0	Balboa	Gatun				
Eastmoor	7	17.00	8	6.22	8	14.32	8	15.30	British	Moor Line, Ltd	399.8	52.9	26.6	Caleta Colosa	Fayal [20]	Nitrates	8,631	5,958	4,244
Col. E. L. Drake [1]	7	10.05	8	7.07	8	16.10	9	7.00	American	Standard Oil Co. of California	360.0	50.0	17.0	San Francisco	Cristobal	Gasoline	571	4,321	3,136
Sudawsonco	7	21.50	8	7.15	8	15.50	8	15.50	American	Transmarine Corporation	324.0	46.2	21.0	Grays Harbor	Port Newark	Lumber, general	3,556	3,984	2,612
Nitokris	7	23.00	8	7.30	8	16.55	8	20.50	German	Kosmos Line	419.1	59.7	25.3	Corral	Hamburg	General	5,890	6,652	4,704
William Green [1]	8	3.00	8	8.20	8	17.00	8	17.00	American	Pan-American Pet. & Transp. Co	430.0	58.2	26.0	San Pedro	New Orleans	Crude oil	10,571	6,975	4,670
Plum Branch	8	5.00	8	8.35	8	17.27	8	19.20	British	F. and W. Ritson	398.5	53.8	24.0	Antofagasta	Liverpool	General	6,302	5,761	3,831
Pennsylvania Sun [1]	8	4.05	8	9.37	8	18.20	8	18.20	American	Sun Oil Co	480.5	66.0	28.6	Los Angeles	New York	Crude oil	12,819	9,325	6,383
Gulfpoint [1]	8	10.00	8	11.09	8	18.40	8	18.40	American	Gulf Refining Co	435.6	56.2	28.0	San Pedro	New York	Crude oil	10,422	7,426	5,128
Alvarado	8	10.30	8	11.27	8	19.20	9	16.26	British	Pacific Steam Navigation Co	303.0	43.0	17.6	Guayaquil	New York	General	855	2,844	1,748
Argon [1]	8	14.00	8	14.49	8	22.45	8	23.25	American	Standard Transportation Co	435.6	56.2	26.6	Los Angeles	Providence	Crude oil	9,646	7,386	5,183

[1] Tanker. [18] U. S. S. tug. [19] Launch. [20] For orders. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 2.	Panama	Panama Railroad Steamship Line	New York via Haiti.	December 2.	Zacapa	United Fruit Co	Bocas del Toro.
December 2.	Zacapa	United Fruit Co	New Orleans via Habana.	December 2.	Ulua	United Fruit Co	New York via Habana.
December 2.	Ulua	United Fruit Co	Port Limon.	December 5.	Toloa	United Fruit Co	Port Limon.
December 3.	St. Mihiel [21]	U. S. Army	New York.	December 6.	Tivives	United Fruit Co	Colombian ports.
December 4.	Toloa	United Fruit Co	New York via Habana.	December 6.	Saramaca	United Fruit Co	New Orleans via wayports.
December 4.	P. de Latouche	French Line	Havre via wayports.	December 6.	San Bruno	United Fruit Co	Boston via Port Limon.
December 5.	Saramacca	United Fruit Co	New Orleans via Habana.	December 6.	Zacapa	United Fruit Co	New Orleans.
December 5.	San Bruno	United Fruit Co	Boston via Habana.	December 7.	St. Mihiel [21]	U. S. Army	New York.
December 5.	Tivives	United Fruit Co	New York via Kingston.	December 7.	Eupatoria	Hamburg-American Line	Porto Colombia.
December 6.	Zacapa	United Fruit Co	Bocas del Toro.	December 8.	P. de Latouche	French Line	Havre via wayports.
December 6.	Eupatoria	Hamburg-American Line	Puerto Barrios.				

[21] Transport.

PORT OF BALBOA.

December 6.	Otavi	Hamburg-American Line	Punta Arenas.	December 2	Romulus [1]	A. O. Lindvig	Arica.
				December 3	Eastern Gale	General Steamship Corp. (S. B.)	San Francisco.
				December 7	Otavi	Hamburg-American Line	Arica.

[1] Tanker.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in November, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	91	405,382	502,114	643,912	403,769	$119,269.82	225,250
From United States to Far East:							
British	7	29,512	40,315	46,952	29,709	36,890.00	54,877
Japanese	5	21,616	24,980	32,250	21,266	26,651.90	36,523
United States	6	28,506	34,224	40,035	26,530	35,632.50	41,556
Totals	18	79,631	99,519	119,237	77,505	99,174.40	132,956
From the United States to South America:							
British	3	8,216	10,417	14,068	8,625	10,270.00	6,862
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	3,081
Danish	1	1,345	2,113	2,327	1,335	1,681.25	1,583
Japanese	1	4,314	4,663	5,838	4,219	5,392.50	4,050
Norwegian	1	4,107	4,733	6,583	4,121	3,407.76	.....
United States	7	25,665	31,753	43,148	25,582	26,232.81	11,663
Totals	15	50,638	63,056	86,563	51,744	55,723.07	27,239
From Europe to United States:							
British	8	30,186	37,440	48,336	30,976	31,489.86	8,329
Dutch	1	3,514	4,395	5,789	3,381	3,164.40	.....
German	2	4,988	6,740	8,241	4,992	6,235.00	9,411
Norwegian	5	18,422	24,213	28,614	18,209	17,423.06	.....
Spanish	1	3,478	4,422	5,514	3,474	3,183.84	.....
United States	1	3,569	4,403	5,614	3,421	3,170.16	.....
Totals	18	64,157	81,613	102,108	64,444	64,636.32	17,740
From Europe to South America:							
British	7	29,138	36,977	45,647	28,563	36,422.50	18,787
Danish	1	1,709	2,460	2,864	1,690	1,771.20	.....
Dutch	3	15,349	20,124	24,688	15,545	19,186.25	14,156
French	2	7,269	8,336	11,614	7,491	9,086.25	1,181
German	3	8,537	13,534	16,048	9,680	10,671.25	5,806
Italian	1	3,331	3,975	5,493	3,275	4,163.75	956
Spanish	4	11,205	12,925	17,787	11,999	10,369.39	208
Totals	21	76,538	98,331	124,141	78,153	91,670.59	41,094
From United States to Australasia:							
British	8	34,681	45,876	54,338	34,806	43,351.25	45,415
United States	1	4,309	4,944	6,848	4,280	5,386.25	6,000
Totals	9	38,990	50,820	61,186	39,086	48,737.50	51,415
From Europe to Australasia:							
British	7	37,019	45,311	56,930	37,332	46,273.75	34,672
French	1	4,777	5,472	7,499	4,776	5,971.25	2,904
Totals	8	41,796	50,783	64,429	42,108	52,245.00	37,576
Foreign ships in ballast, United States coastwise:							
British	3	19,621	27,259	35,475	21,589	20,554.69	.....
Dutch	1	4,072	4,661	6,430	4,117	3,355.92	.....
Japanese	2	7,474	9,309	12,038	7,422	6,702.48	.....
Norwegian	3	12,373	12,463	14,176	8,722	10,906.35	.....
Totals	9	43,540	53,692	68,119	41,850	41,519.44	.....
From Europe to Canada:							
British	5	22,386	27,737	35,608	22,421	23,316.05	4,905
Danish	1	4,257	5,341	6,650	4,247	5,321.25	4,512
French	2	6,572	9,121	10,479	6,452	8,215.00	9,824
German	1	4,909	6,732	8,109	4,883	6,136.25	5,601
Totals	9	38,124	48,931	60,846	38,003	42,988.55	24,842
From Canada to Australasia:							
British	2	6,542	8,282	10,738	6,565	8,177.50	10,648
South America coastwise:							
Norwegian	1	1,875	2,149	2,733	1,723	1,547.28	.....
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	987
Totals	3	4,896	8,059	12,094	6,823	5,323.53	987

ATLANTIC TO PACIFIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From United States to Canada:							
British	1	3,102	3,753	4,931	3,166	$2,702.16	.....
United States	2	7,748	10,310	12,600	7,748	9,685.00	10,180
Totals	3	10,850	14,063	17,531	10,914	12,387.16	10,180
From Mexico to Central America:							
United States	1	2,350	2,326	3,099	2,364	2,791.20	4,688
From Europe to Far East:							
British	1	6,798	8,885	10,893	6,791	8,497.50	6,326
From South America to Far East:							
Japanese	1	3,677	4,118	5,853	3,621	4,596.25	3,545
From Europe to Central America:							
German	1	3,925	4,082	5,463	3,960	4,898.40	2,471
From United States to Balboa:							
United States	1	4,399	5,049	7,246	4,399	5,498.75	6,250
From Canada to United States:							
United States	1	5,100	6,087	8,213	5,108	4,382.64	.....
From Cristobal to South America:							
British	3	740	766	1,360	802	903.90	413
Colombian	3	735	747	1,881	1,313	707.94	33
Totals	6	1,475	1,513	3,241	2,115	1,611.84	446
From Cristobal to Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	2,160
Panaman	1	26	26	.....	.....	19.50	.....
Totals	3	1,312	1,467	2,298	1,304	1,627.00	2,160
From Cristobal to United States:							
British	1	4,088	4,741	6,163	3,606	3,413.52	.....
United States	1	1,332	1,593	2,153	1,309	1,665.00	1,816
Totals	2	5,420	6,334	8,316	4,915	5,078.52	1,816
From South America to United States:							
British	1	3,392	4,069	5,998	3,619	2,929.68	.....
United States	1	3,634	4,873	5,867	3,634	4,542.50	5,726
Totals	2	7,026	8,942	11,865	7,253	7,472.18	5,726
From Mexico to South America:							
British	1	4,248	4,723	7,335	4,259	5,310.00	9,559
United States	1	4,172	5,383	6,690	4,165	5,215.00	10,000
Totals	2	8,420	10,106	14,025	8,424	10,525.00	19,559
From Mexico to United States:							
British	1	8,158	9,350	12,910	8,152	6,732.00	.....
United States	2	12,022	14,056	17,772	12,162	10,290.99	.....
Totals	3	20,180	23,406	30,682	20,314	17,022.99	.....
From Canada to South America:							
British	1	2,551	2,717	4,145	2,566	1,956.24	.....
Totals, November, 1923	231	933,720	1,164,295	1,486,242	934,098	1,017,841.39	632,914
Totals, November, 1922	148	552,805	694,963	863,193	539,277	636,330.48	501,378
Totals, November, 1921	123	431,267	539,017	671,741	429,608	528,209.07	386,681

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	106	485,950	598,239	767,628	484,430	605,711.90	976,973
From South America to United States:							
British	4	15,421	19,013	26,382	16,134	19,276.25	23,769
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,436
Danish	1	3,585	4,418	5,702	3,583	4,481.25	8,750
Japanese	1	4,338	4,704	5,864	4,259	5,422.50	8,405
Norwegian	1	2,717	4,230	4,341	2,723	3,396.25	8,250
Peruvian	1	2,516	3,084	3,829	2,441	3,145.00	5,863
United States	10	29,664	35,504	52,931	29,482	36,936.35	84,571
Totals	19	61,753	75,658	106,359	62,598	77,047.60	145,084

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From South America to Cristobal:							
British	2	677	694	1,249	702	$825.15	616
Colombian	3	735	747	1,881	1,313	887.75	1,032
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	3,185
Totals	6	2,927	4,400	7,747	4,442	3,606.65	4,833
From United States to Europe:							
British	7	29,136	35,654	46,939	29,157	36,420.00	49,312
Danish	1	4,223	5,303	5,296	3,311	5,278.75	8,888
French	1	4,380	4,317	5,351	3,339	5,199.60	6,329
German	1	4,909	6,680	8,116	4,887	6,136.25	9,026
Japanese	2	8,534	9,335	11,656	8,452	10,667.50	15,543
Norwegian	1	3,003	3,886	4,894	3,054	3,753.75	5,900
Swedish	1	2,253	4,019	3,745	2,858	2,816.25	5,267
United States	3	10,517	14,669	17,299	10,513	13,146.25	24,489
Totals	17	66,955	83,863	103,296	65,571	83,418.35	124,754
From Canada to Europe:							
British	4	12,540	16,300	19,769	12,465	15,675.00	26,076
Dutch	1	5,763	7,619	9,338	5,808	7,203.75	9,750
French	2	8,963	9,937	12,438	7,791	11,112.45	15,158
Japanese	1	4,268	4,658	5,827	4,228	5,335.00	7,649
Norwegian	1	4,509	5,637	7,116	4,493	5,636.25	9,300
Totals	9	36,043	44,151	54,488	34,785	44,962.45	67,933
From South America to Europe:							
British	7	26,102	33,138	42,748	26,247	32,627.50	42,785
French	1	4,326	4,363	5,903	3,743	5,235.60	6,697
German	4	13,849	16,638	19,948	12,241	17,028.30	20,732
Italian	2	6,011	7,748	10,164	5,912	7,513.75	9,321
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	989
Totals	15	54,408	67,405	86,341	52,545	67,555.15	80,524
From United States to Cristobal:							
British	1	4,088	4,741	6,163	3,606	5,110.00	8,053
United States	2	2,499	3,142	4,127	2,470	3,123.75	774
Totals	3	6,587	7,883	10,290	6,076	8,233.75	8,827
From United States to Mexico:							
British	5	36,895	40,808	56,496	36,937	45,767.90	73,706
Dutch	1	4,641	5,521	7,283	4,580	5,801.25	9,268
Norwegian	1	4,418	5,043	6,987	4,422	5,522.50	9,700
Totals	7	45,954	51,372	70,766	45,939	57,091.65	92,674
From Central America to Cristobal:							
British	3	1,934	2,176	3,426	1,954	2,417.50	587
From Australasia to Europe:							
British	5	24,908	30,264	39,712	25,021	31,135.00	32,325
Swedish	1	2,711	3,972	4,439	3,380	3,388.75	7,000
Totals	6	27,619	34,236	44,151	28,401	34,523.75	39,325
From Canada to West Indies:							
Norwegian	1	832	1,121	1,648	811	1,040.00	1,482
From Australasia to Canada:							
British	1	4,403	5,494	7,178	4,413	5,503.75	900
From Central America to Mexico:							
United States	1	2,350	2,326	3,099	2,364	1,762.50	.....
From west coast of South America to east coast of Central America							
United States	1	923	950	1,768	981	1,140.00	.....
From South America to Canada:							
British	1	5,004	5,879	8,461	5,960	6,255.00	11,832
From South America to Egypt:							
British	1	2,568	3,273	4,071	2,576	3,210.00	5,916
From Canada to United States:							
United States	2	6,469	9,905	10,527	6,451	8,086.25	13,145
From Australasia to United States:							
United States	1	4,445	4,415	5,838	4,493	5,298.00	590
From Far East to United States:							
United States	1	5,259	5,686	6,870	5,259	6,573.75	7,750
Japanese	1	4,570	5,587	7,347	4,511	5,712.50	2,301
Totals	2	9,829	11,273	14,217	9,770	12,286.25	10,051

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From South America to Mexico:							
British	2	8,578	9,554	14,672	8,545	$6,878.88	.....
United States	1	5,099	5,997	8,207	5,092	4,317.84	.....
Totals	3	13,677	15,551	22,879	13,637	11,196.72	.....
Totals, November, 1923	205	840,630	1,029,570	1,334,178	838,197	1,040,347.22	1,585,381
Totals, November, 1922	146	509,920	642,317	806,293	505,556	628,106.06	925,482
Totals, November, 1921	99	322,430	403,394	512,416	323,278	394,839.63	468,759

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 8, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Corinto	Pacific Mail Steamship Co	.....	December 2	.....	1,499
Ulua	United Fruit Co	December 2	December 2	37	107
Duendes	Pacific Steam Navigation Co	December 2	December 2	(1)	358
Bennekom	Royal Netherlands W. I. Mail	December 2	December 3	262	(2)
Panama	Panama Railroad Steamship Line	December 2	.....	1,416	.....
Zacapa	United Fruit Co	December 2	December 2	44	71
Gen. O. H. Ernst	Panama Railroad Steamshiip Line	December 2	December 5	179	120
President Hayes	Swayne & Hoyt, Inc	December 2	December 3	12	(2)
Sicania	La Veloce Line	December 3	December 4	123	(2)
Lima	Johnson Line	December 4	December 4	(1)	170
Huallaga	Peruvian Line	December 4	December 7	1,870	(2)
Pellerin de Latouche	French Line	December 4	December 8	198	100
Toloa	United Fruit Co	December 4	December 5	120	52
Author	Leyland Line	December 5	December 6	743	740
San Bruno	United Fruit Co	December 5	December 6	26	105
Radames	Kosmos Line	December 5	December 5	109	(2)
Santa Tecla	Grace Line	December 5	December 6	49	25
Tivives	United Fruit Co	December 5	December 6	247	99
Saramacca	United Fruit Co	December 6	December 6	659	142
Zacapa	United Fruit Co	December 6	December 6	4½	3
Ivernia	N. O. & S. A. S. S. Co	December 6	December 6	14	86
Eupatoria	Hamburg-American Line	December 6	December 7	22	46
Lochgoil	Pacific Steam Navigation Co	December 6	December 7	(1)	490
Junin	Pacific Steam Navigation Co	December 6	December 7	300	10
Oropesa	Pacific Steam Navigation Co	December 6	December 7	4	4
Antinous	French Line	December 7	December 8	8	(2)
Balboa	Compania Costernia Colombia	December 7	.....	496	.....
Amersfoort	Royal Netherlands W. I. Mail	December 7	December 8	353	146
Naimes	Roland Line	December 7	December 7	194	(2)
Salvador	Pacific Steam Navigation Co	.....	December 8	.....	1,237
Col. E. L. Drake	Standard Oil Co. of California	December 8	.....	571	.....
Iowa	French Line	December 8	.....	85	.....
Alvarado	Pacific Steam Navigation Co	December 8	December 8	610	360

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 8, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Eastern Gale	General Steamship Corporation	December 1	December 2	597	.....
Ecuador	Pacific Mail Steamship Co	December 1	December 2	23	16
Corinto	Pacific Mail Steamship Co	December 2	December 2	.....	49
Edgemoor [1]	U. S. Government	December 4	December 4	.....	52
Toba Maru	Nippon Yusen Kaisha	December 5	December 5	73	.....
Ivernia	N. O. & S. A. S. S. Co	December 6	December 6	.....	37
Naimes	Roland Steamship Co	December 7	December 7	½	.....
Col. E. L. Drake	Standard Oil Co. of N. J.	December 7	December 8	1,764	.....
Amersfoort	Royal Netherlands W. I. Mail	December 8	December 8	213	.....

[1] U. S. A. transport.

Supplement No. 2.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., November 30, 1923.

ITEM 26.—HOTEL WASHINGTON.

European plan.

1. Adult guests.

(Effective December 1, 1923.)

Grade.	Daily room rates.			
	December to April, Incl.		May to November, Incl.	
	1 person.	2 persons.	1 person.	2 persons.
A	$8.00	$10.00	$6.00	$8.00
1	6.00	8.00	5.00	7.00
2	5.00	7.00	4.00	6.00
3	4.50	6.50	3.50	5.50
4	4.00	6.00	3.00	5.00
5	3.50	5.50	2.50	4.50

ITEM 27.—HOTEL TIVOLI.

European plan.

1. Adult guests.

(Effective December 1, 1923.)

Grade.	Daily room rates.			
	December to April, incl.		May to November, incl.	
	1 person.	2 persons.	1 person.	2 persons.
Parlor and bedroom	$12.00	$18.00	$10.00	$14.00
A	6.00	10.00	5.00	8.00
1	5.00	8.00	4.00	7.00
2	4.00	7.00	3.50	6.00
3	2.50	.....	1.50	.....

Tivoli Annex, House No. 438.

	1 person.	2 persons.
Rooms.....per day	$2.50	$4.00

ITEM 22.—FUEL AND DIESEL OILS.

(Effective December 1, 1923.)

3. Pumping oil into and out of private tanks, each way.....per barrel $0.04
Oil will be handled for storage by The Panama Canal with viscosities up to 300 seconds at 122° F. (Saybolt Furol.)

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., December 19, 1923. No. 19.

Good Wishes of the Season.

THE PANAMA CANAL,
BALBOA HEIGHTS, C. Z., December 19, 1923.

As in previous years the Panama Canal extends to all of its patrons and employees, to the local Army and Navy contingents, and to the people of Panama, the greetings of the season.

The past 12 months have been prosperous for the Canal beyond all precedent and expectation. Traffic and revenue have increased nearly 100 per cent. That the Canal was necessary to the military defense of the United States and of supreme importance to the maritime commerce of the world has long been obvious. It has now been demonstrated that it will pay in the narrowest commercial sense, and that the cost of its construction can be recovered from tolls that are neither excessive nor burdensome.

The increase of traffic through the Canal is not only of local importance, but it is a reassuring indication of the gradual revival of world trade and of slow recovery from the devastating aftereffects of the war.

While nothing has occurred during the year to interrupt the safe and rapid transit of vessels from one ocean to another, there have been minor crises, due to the rapid increase of traffic, to floods, and to lesser slides, which have tested our organization and proven its loyalty, efficiency, and resourcefulness in emergencies.

We look forward to another year of prosperity both for ourselves and for our patrons, with confidence that the high standard of service to the world's shipping that was established in 1914 shall be maintained.

JAY J. MORROW, *Governor.*

Traffic During First Fifteen Days in December.

From December 1st to 15th, inclusive, 245 commercial ships passed through the Canal and paid a total of $1,140,291.35 in tolls. This was at the rate of 16.33 ships per day, and average daily tolls collections of $76,019.42, and establishes a new high record for a half-month period.

A comparison of the previous months of the current calendar year with the first half of December is shown in the following tabulation of average daily transits and average daily tolls receipts:

Month.	No. of daily transits.	Tolls daily.
January	11.35	$48,557 60
February	11.64	50.855 51
March	13.20	58,958.66
April	13.47	62,631.27
May	13.52	63,619.87
June	13.90	63,275.30
July	15.29	68,529.36
August	14.65	66,150.22
September	13.77	63,415.12
October	13.77	64,148.63
November	14.53	68,606.29
December (first 15 days only)	16.33	76,019.42

Salvage of Steamer "San Gil."

Following his return to the Canal after towing the United Fruit Company's steamer *San Gil* to Mobile, Capt. F. Kariger, pilot in charge of The Panama Canal's salvage section, has submitted a detailed report covering the salvage of the *San Gil* from the reefs of Old Providence.

Instructions to proceed to the relief of the *San Gil* were received on October 22. The *Favorite* was then at Bona Island in Panama Bay, but immediately proceeded through the Canal, took on supplies and oil, and left Cristobal at midnight. A furious sea was running at the time, which did not decrease until the lee of Old Providence was reached on October 24.

The *San Gil* was fast aground for her whole length, with reefs showing dry on either side, ahead and astern. There were 16 feet of water and oil in the holds, the engines had been displaced so that they could not be used to assist in getting the ship off, and the boilers were also out of commission. It was eventually found possible to get up steam in the port boiler for the operation of the winches.

On account of the peculiar position of the ship it was first necessary to haul her for 520 feet over the reef into a lagoon and then out into deep water. This was accomplished after various difficulties had been encountered and overcome on the evening of November 15. Temporary repairs were then made, sufficient with the assistance of the salvage pumps to keep the ship afloat, and the *Favorite* towed the *San Gil* to Mobile, a distance of 1,115 miles, at an average speed of 7 knots an hour, arriving on November 26.

Under date of December 12, Governor Morrow addressed the following letter to Captain Kariger:

"I desire to express to you and to the officers and crew of the *Favorite* my high appreciation of the fine work in the salvaging of the United Fruit Company's steamer *San Gil*.

"The *San Gil* was on an exposed reef, with heavy seas breaking a good percentage of the time, and it was only through splendid seamanship that salvage operations were carried on without loss of property or life.

"The salvage section is to be congratulated on its fine spirit."

Night Train to be Boarded at Mount Hope.

Effective December 22, 1923, passengers boarding train No. 41, scheduled to leave Mount Hope at 8 p. m. daily, will entrain at Mount Hope station, instead of opposite the Cristobal yard office, as at present. Train No. 41 will carry passengers only for Gatun, Gamboa, Pedro Miguel, Corozal, and Panama.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended December 17:

U. S. submarine *O–6*, dock, stage, scrape, and wire brush bottom; scale bad spots and red lead same; paint bottom two coats; clean and paint all ballast, trim, and fuel tanks; examine and make repairs to outside steering and diving gear; check propeller pitch; regrind muffler valves; repair superstructure and other work incidental to periodical overhaul; steamships *Panama*, repair No. 1 dynamo, drain from feed water heater to hot well, auxiliary feed pump, sanitary pump, dynamo steam pipe, ballast pump suction, suction to No. 6 inner bottom tanks, heating system, sanitary pipe in firemen's forecastle, pipe covering, starboard hot well, fire tools, and chisels. Manufacture two wrenches for crank shaft coupling bolts; 3 sounding pipe deck plugs, and door hooks; clear galley sink and repair galley utensils, etc.; *General*

O. H. Ernst, repair copper suction pipe to after feed pump, copper steam pipe to windlass, copper sanitary line, and ash bucket; continue calking on boat deck; *Huallaga*, overhaul 4 gin blocks and manufacture one hose reducer. *Ulysses*, repair outboard main feed pump, sanitary pump, bilge suction pipe, clapper valve in forepeak, galley boiler, life-boat air tanks, and divisional bulkheads in forepeak; scale, clean, and cement wash top side tanks and manufacture manhole for same; clean furnaces, etc.; *Jamaica*, repair steering engine, ballast pump, fresh water pump, windlass brake, chisels, lamps, drain from exhaust tank, water service pipe, steam pipe casing, and scale; manufacture two eyebolts, 50 grate bars, 10 rods for rigging, and one flag staff; renew bricks in galley stove, etc.; tug *Favorite*, rebore steam chest of air pump and manufacture new piston valve for same; connect exhaust line from deck machinery to condenser; renew main feed suction, oil piping to heaters, and two staybolts in port boiler; calk rivets on boiler furnace fronts; repair boat davits and crane, etc.; steamship *Cristobal*, repair No. 4 hoister steam pipe, rail stanchions, cargo shackles, miscellaneous sanitary piping, and leak from engineer's shower; true up commutator of machine shop motor; burn manhole and install cover plate in brine tank; scale, wire brush, and cement wash inner bottom tanks; install guard plates over two soil pipe outlets on ship's side; continue calking of poop deck, etc.

Minor repairs: Steamships *Balboa*, *Amersfoort*, *Sunugencto*, *Cerro Azul*, *Antietam*, and *Salvador*; launches *Coco Solo* and *Cruces*; *Neponset*, *Crynssen*, *Dinnamare*, *Orcoma*, and *Schwarzwald*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 15, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Iowa	Cie Generale Transatlantique	.....	December 9	.....	168
Abangarez	United Fruit Co	December 9	December 9	245	2
Toloa	United Fruit Co	December 9	December 9	32	107
Panama	Panama Railroad Steamship Line	.....	December 9	.....	2,929
Teno	Chilean Line	December 10	December 10	9	(2)
Tivives	United Fruit Co	December 10	December 11	5	93
Huallago	Peruvian Line	December 11	December 13	1	412
San Blas	United Fruit Co	December 11	December 12	16	51
Calamares	United Fruit Co	December 11	December 12	144	118
Turrialba	United Fruit Co	December 11	December 13	513	(3)
Ballena	Pacific Steam Navigation Co	December 12	December 12	63	66
Crynssen	Royal Netherlands W. I. Mail	December 12	December 12	346	(2)
Sonora	Cie Generale Transatlantique	December 12	December 13	242	(2)
Camden	United Fruit Co	December 12	December 15	8,783	2,338
Dinnamare	La Veloce Line	December 12	December 13	(1)	39
Cristobal	Panama Railroad Steamship Line	December 13	.....	2,522	.....
Metapan	United Fruit Co	December 13	December 13	490	110
Santa Marta	United Fruit Co	December 13	December 13	2	53
Orcoma	Pacific Steam Navigation Co	December 13	December 14	28	33
Loreta	Pacific Steam Navigation Co	December 13	December 14	189	120
Esscquibo	Pacific Steam Navigation Co	December 14	December 15	257	19½
Crynssen	Royal Netherlands W. I. Mail	December 14	December 15	¼	400
Moordijk	Holland-American Line	December 15	.....	257	.....
Coronado	Elders & Fyffes, Ltd	December 15	December 15	7	(2)
Jamaica	Pacific Steam Navigation Co	December 15	.....	440	.....
Santa Olivia	Grace Line	December 15	.....	407	.....

[1] No cargo discharged. [2] No cargo laded. [3] 1 case.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 15, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Strombus	Anglo-Saxon Petroleum Co	December 9	December 12	7,879	.....
Loreto	Pacific Steam Navigation Co	December 12	December 13	153	.....
Laura C. Hall	Pacific Metals Transport Co., Ltd.	December 13	December 15	44	.....
Orcoma	Pacific Steam Navigation Co	December 14	December 14	1	.....
Jamaica	Pacific Steam Navigation Co	December 14	December 15	5	.....
Akera	Shell Oil Co. of California	December 15	.....	6,918	19

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, November, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.	Total, South America.	West coast of United States.	West coast of Mexico.	West coast of Canada.	West coast of North America.	West coast of Central America.	Balboa, C. Z.[2]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States:																									
North Atlantic ports	5,752	....	....	1,021	18,883	25,656	213,077	....	....	....	.....	.....	213,077	19,333	.....	11,478	60,062	90,873	6,097	26,139	....	32,236	4,184	366,026	57.8
South Atlantic ports	.....	....	....	.....	.....	.....	7,115	....	....	....	.....	.....	7,115	9,083	3,886	2,583	12,612	28,164	.....	.....	6,099	6,099	.....	41,378	6.6
Gulf ports	.....	....	....	.....	1,583	1,583	16,053	....	....	....	.....	6,250	22,303	9,686	....	.....	5,560	15,246	.....	16,938	8,661	25,599	.....	64,731	10.2
Totals, United States	5,752	....	....	1,021	20,466	27,239	236,285	....	....	....	.....	6,250	242,495	38,102	3,886	14,061	78,234	134,283	6,097	43,077	14,760	63,934	4,184	472,135	74.6
East coast of Mexico	19,559	....	....	.....	.....	19,559	.....	....	....	....	4,688	.....	4,688	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,247	3.8
Cristobal, C. Z.[2]	.....	446	....	.....	.....	446	.....	....	....	....	3,976	.....	3,976	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,422	0.7
East coast of Canada	.....	....	....	.....	.....	.....	.....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	6,686	.....	3,962	10,648	.....	10,648	1.7
Totals, North America	19,559	446	....	.....	.....	20,005	.....	....	....	....	8,664	.....	8,664	.....	.....	.....	.....	.....	6,686	.....	3,962	10,648	.....	39,317	6.2
Europe:																									
British Isles	3,500	....	....	.....	11,637	15,137	9,316	....	....	....	.....	.....	9,316	.....	.....	.....	.....	.....	22,153	.....	.....	.....	.....	46,606	7.4
France	.....	....	....	.....	.....	.....	6,120	....	....	....	.....	.....	6,120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,120	1.0
Germany	.....	....	....	.....	1,884	1,884	5,000	....	....	....	.....	.....	5,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,884	1.0
Holland	.....	....	....	.....	4,000	4,000	.....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,000	0.7
Spain	.....	....	....	.....	208	208	.....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	208	....
Europe[1]	4,904	....	....	.....	16,909	21,813	22,146	....	....	....	2,471	.....	24,617	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46,430	7.4
Italy	.....	....	....	.....	956	956	.....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	956	0.1
Totals, Europe	8,404	....	....	.....	35,594	43,998	42,582	....	....	....	2,471	.....	45,053	.....	.....	.....	.....	.....	22,153	.....	.....	22,153	.....	111,204	17.6
East coast of S. America	.....	....	....	987	.....	987	5,726	....	....	....	.....	.....	5,726	3,545	....	.....	.....	3,545	.....	.....	.....	.....	.....	10,258	1.6
Grand totals	33,715	446	....	2,008	56,060	92,229	284,553	....	....	....	11,135	6,250	301,938	41,647	3,886	14,061	78,234	137,828	34,936	43,077	18,722	96,735	4,184	632,914	100.0
Per cent of total cargo:																									
November, 1923	5.3	....	....	0.4	8.9	14.6	44.9	....	....	....	1.8	1.0	47.7	6.6	0.5	2.2	12.4	21.7	5.5	6.8	3.0	15.3	0.7	.....	100.0
November, 1922	9.9	0.4	1.1	2.8	2.6	16.8	43.1	0.1	2.0	1.3	0.8	0.7	48.0	9.4	9.3	1.1	0.8	20.6	7.7	6.0	.....	13.7	0.9	.....	100.0
November, 1921	2.8	0.2	0.2	3.8	2.6	9.6	34.6	....	0.5	....	0.8	2.3	38.2	17.7	6.5	0.9	6.8	31.9	11.1	1.3	.....	18.2	2.1	.....	100.0

[1] General cargo not routed so as to allow segregation between definite points.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing through the Panama Canal from the Pacific to the Atlantic, November, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[1]	Italy.	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	102,387	.....	8,750	111,137	.....	186	.....	30	111,353	15,799	....	....	....	....	8,500	7,500	15,683	.....	47,482	....	5,916	164,751	10.4
Colombia	530	.....	.....	530	.....	.....	.....	1,648	2,178	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	2,178	0.1
Ecuador	342	.....	.....	342	.....	.....	.....	249	591	.....	....	....	....	....	.....	.....	.....	1,858	1,858	....	.....	2,449	0.2
Peru	21,528	.....	.....	21,528	11,832	.....	.....	2,936	36,296	4,490	....	....	....	....	.....	.....	190	.....	4,680	....	.....	40,976	2.6
West coast South America[1]	11,040	.....	.....	11,040	.....	.....	.....	457	11,497	9,882	....	....	....	....	.....	.....	6,697	7,463	24,042	....	.....	35,539	2.2
Totals, South America	135,827	.....	8,750	144,577	11,832	186	.....	5,320	161,915	30,171	....	....	....	....	8,500	7,500	22,570	9,321	78,062	....	5,916	245,893	15.5
North America:																							
W. coast of United States	837,292	27,040	117,136	981,468	.....	.....	92,674	8,244	1,082,386	88,806	....	....	....	....	.....	.....	41,508	.....	130,314	....	.....	1,212,700	76.5
West coast of Canada	.....	.....	.....	.....	.....	3,733	.....	.....	3,733	14,983	....	....	....	....	.....	.....	40,640	.....	55,623	....	.....	59,356	3.7
West coast Central America	50	.....	.....	50	.....	.....	.....	1,170	1,220	.....	....	....	....	....	.....	.....	2,246	.....	2,246	....	.....	3,466	0.3
West coast North America[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,750	....	....	....	....	.....	.....	.....	.....	6,750	....	.....	6,750	0.4
Hawaii	6,350	.....	179	6,529	.....	.....	.....	.....	6,529	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	6,529	0.4
Totals, North America	843,692	27,040	117,315	988,047	.....	3,733	92,674	9,414	1,093,868	110,539	....	....	....	....	.....	.....	84,394	.....	194,933	....	.....	1,288,801	81.3
Asia:																							
China	6,471	.....	.....	6,471	.....	.....	.....	.....	6,471	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	6,471	0.4
Philippines	1,100	.....	.....	1,100	.....	.....	.....	.....	1,100	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	1,100	.....
Far East[1]	2,301	.....	.....	2,301	.....	.....	.....	.....	2,301	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	2,301	0.2
Totals, Asia	9,872	.....	.....	9,872	.....	.....	.....	.....	9,872	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	9,872	0.6
Australasia:																							
Australia	.....	.....	.....	.....	900	.....	.....	.....	900	.....	....	....	....	....	.....	.....	.....	.....	.....	....	.....	900	.....
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,598	....	....	....	....	.....	.....	.....	.....	10,598	....	.....	10,598	0.8
Australasia[1]	590	.....	.....	590	.....	.....	.....	.....	590	13,227	....	....	....	....	.....	.....	15,500	.....	28,727	....	.....	29,317	1.8
Totals, Australasia	590	.....	.....	590	900	.....	.....	.....	1,490	23,825	....	....	....	....	.....	.....	15,500	.....	39,325	....	.....	40,815	2.6
Grand totals	989,981	27,040	126,065	1,143,086	12,732	3,919	92,674	14,734	1,267,145	164,535	....	....	....	....	8,500	7,500	122,464	9,321	312,320	....	5,916	1,585,381	100.0
Per cent of total cargo:																							
November, 1923	62.5	1.6	7.9	72.0	0.9	0.3	5.8	0.9	79.9	10.4	....	....	....	....	0.5	0.5	7.7	0.6	19.7	....	0.4	.....	100.0
November, 1922	43.8	5.9	4.9	54.6	.....	2.0	0.2	0.9	57.7	16.9	0.9	0.1	2.0	1.4	1.5	2.4	11.9	3.2	40.3	0.6	1.4	.....	100.0
November, 1921	36.9	0.8	0.7	38.4	.....	1.1	.....	1.8	41.3	18.7	2.4	1.4	4.8	4.8	1.0	1.6	17.0	6.9	58.6	0.1	....	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 15, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Oregon Maru	8	18.10	9	6.30	9	14.10	9	15.22	Japanese	Yonekichi Mari	385.0	51 0	26.0	New York	Yokohama	General	7,654	6,251	4,700
Ormidale	8	18.05	9	6.30	9	15.00	9	16.04	American	C. D. Mallory	250.0	43.6	20.0	New Orleans	San Pedro	General	2,863	2,373	1,612
Col. E. L. Drake [1]	8	16.10	9	7.00	9	15.47	9	16.40	American	Standard Oil Co	360.0	50.0	17.8	Cristobal	San Pedro	Ballast		4,322	3,138
E. L. Doheny, III [1]	8	20.25	9	7.14	9	15.04	9	16.09	American	Pan-American Petroleum Co	467.6	62.7	21.0	New York	San Pedro	Ballast		9,666	7,034
Antietam [1]	8	23.35	9	8.35	9	17.03	9	18.01	American	Antietam Steamship Co	435.6	56.2	22.6	New York	San Pedro	Ballast		7,426	5,094
Ipswich	9	5.56	9	9.25	9	17.19	10	0.13	American	Shawmut Steamship Co	400.7	54.2	15.9	New York	Seattle	General	2,003	6,616	4,614
Grelwen	9	9.40	9	11.00	9	18.23	9	19.14	British	Gould Steamship Co	390.0	52.0	14.0	Newport News	Grays Harbor	Ballast		5,973	4,526
Tuscaloosa City	8	22.58	9	11.25	9	18.55	9	19.52	American	Isthmian Line	424.2	56.2	25.6	Baltimore	Honolulu	(6)	8,453	7,611	5,450
Iowa	8	22.03	9	12.07	9	19.44	9	20.36	French	Cie Generale Transatlantique	450.0	53.3	21.0	Havre	Vancouver	General	2,763	7,469	5,020
Sunnygentco	6	22.45	9	13.55	11	17.25	16	17.27	American	Transmarine Corporation	324.0	46.2	22.0	Newark	Seattle	General, iron	3,300	3,984	2,612
Fulton [2]	.....	.....	9	8.35	9	17.50	.....	.....	American	U. S. Navy	216.0	39.0	.....	Cristobal	Balboa	Ballast		.....	.....
No. 285 [3]	.....	.....	9	8.35	9	17.50	.....	.....	American	U. S. Navy	105.0	14.8	.....	Cristobal	Balboa	Ballast		.....	.....
R-23 [4]	.....	.....	9	9.05	9	16.44	.....	.....	American	U. S. Navy	175.0	16.7	.....	Cristobal	Balboa	Ballast		.....	.....
R-26 [4]	.....	.....	9	9.05	9	16.44	.....	.....	American	U. S. Navy	175.0	16.7	.....	Cristobal	Balboa	Ballast		.....	.....
O-4 [4]	.....	.....	9	9.05	9	18.00	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast		.....	.....
O-8 [4]	.....	.....	9	9.05	9	18.09	.....	.....	American	U. S. Navy	172.4	18.0	.....	Cristobal	Balboa	Ballast		.....	.....
No. 2220 [5]	.....	.....	9	.....	9	8.28	.....	.....	Panaman	Lawrence DeLeon	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	1	1
Albertolite [1]	9	20.35	10	6.17	10	15.06	10	16.23	British	Imperial Oil Co	463.3	60.0	28.6	Mata Redondo	Antofagasta	Crude oil	11,400	8,491	5,879
Canadian Trooper	10	7.35	10	8.20	10	16.09	10	17.40	British	Canadian Government	333.7	44.0	13.0	Montreal	Vancouver	Ballast		3,213	2,100
Lio	10	6.00	10	10.45	10	17.44	13	9.00	American	McAllister Bros. (S. B.)	431.0	59.2	21.0	Chester	San Pedro	Ballast		7,862	5,177
Canadian Cruiser	10	7.35	10	13.10	10	19.43	10	20.32	British	Canadian Government	430.0	56.0	21.3	Montreal	Auckland	General, auto	2,277½	7,680	5,494
Willsolo	10	14.50	11	6.15	11	14.09	11	15.16	American	Williams Steamship Co	434.3	57.9	19.6	Norfolk	Seattle	General, coal	4,500	7,983	5,882
Hammershus	10	15.10	11	6.35	11	14.39	11	15.49	Danish	C. K. Hansen	344.9	49.9	17.0	Curacao	Caleta Colosa	Ballast		4,554	3,458
Cerro Azul [1]	10	17.48	11	7.30	11	15.20	12	17.10	American	Pan-American Petroleum Co	480.5	66.0	20.0	New York	San Pedro	Ballast		9,398	6,453
Flackwell	11	6.38	11	8.25	11	15.59	11	17.33	British	D. L. Flack & Son	470.0	57.0	19.6	Hull	San Francisco	Ballast		8,175	5,563
Northwestern Miller	11	7.50	11	9.05	11	16.08	11	22.16	British	Furness, Withy & Co	419.8	53.4	20.0	London	Vancouver	General	4,350	7,074	5,052
Byron D. Benson [1]	11	9.25	11	9.40	11	16.35	11	17.52	American	Tidewater Oil Co	465.4	60.0	23.0	New York	San Pedro	Ballast		8,546	6,095
Romanstar	9	16.00	11	12.05	11	18.31	12	7.29	British	Blue Star Line	420.0	54.0	16.0	Boston	San Pedro	Ballast		7,433	5,870
Eelbeck	11	6.00	11	12.35	11	20.00	11	21.02	American	Barber Line (S. B.)	401.7	54.6	26.6	New York	Honolulu	General	8,246	6,928	5,103
Madoera	11	6.15	11	13.00	11	20.21	11	21.35	Dutch	Netherlands Steamship Co	480.0	60.0	23.0	Amsterdam	Portland	Ballast		9,550	6,620
Saint Bede	11	23.41	12	6.45	12	14.12	12	15.20	British	Rankin Gilmour	384.9	52.0	14.0	Cardiff	Grays Harbor	Ballast		5,212	3,598
Liberator	12	6.10	12	7.05	12	15.15	12	16.17	American	Tampa Interocean Co. (S. B.)	410.0	55.0	27.0	Galveston	Kobe	General	6,932	8,199	6,216

[1] Tanker. [2] Sub tender. [3] Sub-chaser. [4] Submarine. [5] Cayuca. [6] Steel, general, and tin plate.

Manchester Civilian	12	6.32	12	7.32	12	15.53	12	17.00	British	Manchester Lines, Ltd	385.0	52.0	14.0	Hull	Nanaimo	Ballast		5,302	3,772
J. C. Donnell [1]	12	2.35	12	8.55	12	16.35	12	19.12	American	Atlantic Refining Co	500.0	68.0	23.0	Philadelphia	Los Angeles	Ballast		10,435	7,900
Australind	12	9.25	12	9.55	12	17.36	12	18.35	British	Australind Steamship Co	387.0	50.0	22.2	Montreal	Sydney	General	2,900	5,667	4,143
Neponset	12	11.20	12	11.40	12	18.28	12	19.24	American	Elder & Mittnacht (S. B.)	434.0	57.6	19.0	New York	Los Angeles	General	2,000	7,893	5,621
Ballena	12	.725	12	12.18	12	19.21	12	20.28	British	Pacific Steam Navigation Co	400.0	52.0	22.4	Hull	Talcahuano	General	4,195	5,816	4,113
Grant [7]	12	12.28	12	12.40	12	19.38	14	18.22	American	U. S. Army	508.2	55.3	21.10	Brooklyn	San Francisco	(9)	2,308		
William Rockefeller [1]	12	17.15	13	6.25	13	13.40	13	14.40	American	Standard Oil Co	555.0	75.0	20.0	New York	Los Angeles	Ballast		14,055	10,313
City of Pekin	12	19.52	13	7.08	13	15.07	13	16.27	British	Hall Line, Ltd	442.6	58.7	28.10	New York	San Pedro	General	9,580	9,048	6,846
Horace Luckenbach	12	20.45	13	8.30	13	15.54	13	17.03	American	Luckenbach Line	445.0	58.0	22.8	Boston	Seattle	General	6,471	8,626	6,299
Thomas H. Wheeler [1]	12	21.12	13	9.40	13	16.45	13	17.45	American	Standard Oil Co	425.0	57.2	22.0	Baltimore	San Pedro	Ballast		7,481	4,769
Huallaga	11	12.10	13	10.54	13	18.40	13	19.38	Peruvian	Peruvian Line	360.0	44.7	20.6	Cartagena	Callao	(10)	412	4,514	2,386
Sucubaco	13	11.13	13	11.20	13	18.50	14	7.05	American	Transmarine Corporation	324.0	42.0	18.6	Newark	San Pedro	General	2,005	3,984	2,612
Bethelridge [1]	13	13.03	13	13.10	13	19.34	14	2.13	American	Walker & Daly (S. B.)	431.0	59.2	20.0	New York	San Pedro	Ballast		7,819	5,076
Oreoma	13	15.25	14	6.10	14	14.20	14	16.05	British	Pacific Steam Navigation Co	528.0	62.0	24.2	Liverpool	Valparaiso	General	4,060		
Sheafmount	13	15.00	14	6.20	14	15.13	14	16.12	British	Sheaf Steamship Co	420.0	54.1	15.0	Barry	San Francisco	Ballast		6,555	5,012
Kroonland	14	0.15	14	7.18	14	16.10	15	0.19	American	International Mercantile Marine	560.0	60.2	22.0	New York	San Francisco	General	1,150	13,514	9,127
Royal Prince	13	16.55	14	7.18	14	16.49	14	17.54	British	Prince Line, Ltd	417.8	54.5	20.0	Barry	Vancouver	Ballast		7,164	5,271
Montreal Maru	13	18.45	14	8.20	14	17.00	15	1.44	Japanese	Kawasaki Zosensho	405.0	53.0	14.0	New York	Tocopilla	Ballast		7,034	5,081
Memphis City	13	19.00	14	8.25	14	17.33	14	18.38	American	U. S. Steel Products Co	424.2	56.0	24.3	New Orleans	Yokohama	General	7,690	7,611	5,450
Texan	13	19.50	14	10.10	14	17.47	14	21.18	American	American-Hawaiian Line	471.0	57.2	18.6	New York	Seattle	General	2,871	9,154	6,903
Francis E. Powell [1]	13	21.10	14	9.45	14	18.14	14	19.05	American	Atlantic Refining Co	431.0	59.2	19.0	Philadelphia	San Pedro	Ballast		7,869	5,101
Bethore [1]	14	1.45	14	10.50	14	19.47	14	20.55	American	Ore Steamship Co	550.3	72.2	26.0	New York	Cruz Grande	Ballast		15,476	4,354
Dean Emery [1]	14	4.45	14	10.50	14	18.51	14	19.51	American	Pan-American Petroleum Co	430.0	59.0	20.0	Boston	San Pedro	Ballast		7,709	5,517
City of Boston	14	1.20	14	12.05	14	21.34	14	22.53	British	Ellerman-Hall Lines	469.0	57.0	22.6	New York	Brisbane	General	4,290		
Port Lincoln	14	6.20	14	12.28	14	20.40	14	21.36	British	Cunard Line	425.0	53.9	22.6	Glasgow	Sydney	General	6,400	7,544	5,256
Corona [8]			14		14	8.40			American	J. O. Cedar				Cristobal	Gatun Lake	Ballast		6	4
Essequibo	14	15.55	15	6.09	15	13.31	15	14.32	British	Pacific Steam Navigation Co	460.0	67.0	23.8	New York	Valparaiso	General	1,547	9,099	6,117
Elisha Walker [1]	14	17.45	15	6.20	15	14.21	15	15.30	American	Pan-American Petroleum Co	429.3	59.2	22.0	Providence	San Pedro	Ballast		7,978	5,971
L. J. Drake [1]	14	23.59	15	7.20	15	15.00	15	16.35	American	Standard Oil Co	419.0	57.0	19.0	Baytown	San Pedro	Ballast			
Elida Clausen	14	18.00	15	8.30	15	16.31	15	17.37	Norwegian	M. Clausen	287.0	45.2	14.0	Newport News	San Francisco	Ballast			
Levenpool	15	2.15	15	8.35	15	17.00	15	18.15	British	Sir R. Ropner	376.0	57.0	14.6	Newport News	Vancouver	Ballast			
Durango [1]	15	2.35	15	9.40	15	17.42	15	18.55	American	Malston Line	435.0	56.0	22.0	New York	San Pedro	Ballast		7,643	5,301
Monticello	15	9.03	15	10.40	15	18.22	15	22.17	American	United American Lines	468.0	58.0	17.0	New York	Yokohama	General	4,321		
Capetown Maru	15	9.55	15	10.59	15	18.46	15	20.15	Japanese	Kisen Kabushiki Kaisha	385.0	51.0	15.0	Philadelphia	Vancouver	Ballast		6,209	4,658
District of Columbia [1]	15	10.17	15	11.58	15	19.44	15	20.43	American	Walker & Daly (S. B.)	431.0	59.0	20.0	Fall River	San Pedro	Ballast		8,097	5,431
Hagood [1]	15	11.13	15	12.05	15	19.56	15	21.00	American	Cities Service Corporation	435.6	56.0	20.0	Boston	San Pedro	Ballast		7,426	5,091
Leikanger	15	8.35	15	13.35	15	20.36	16	1.15	Norwegian	Westfall Larsen & Co	375.0	52.0	13.0	Greenock	Los Angeles	Ballast			
Chagres [8]			15		15	11.19			American	American Banana Corporation				Cristobal	Gatun Lake	(11)		2	2

[1] Tanker. [7] Transport. [8] Launch. [9] Household goods, autos, and general. [10] General and 297 head of cattle. [11] Towing barges *5* and *6*.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Schoodic	8	15.15	9	6.21	9	15.23	9	15.23	American	Munson Line (S. B.)	390.0	54.0	23.6	Tocopilla	Jacksonville	Nitrates	6,650	6,149	4,287
O-9 [12]			9	6.43	9	15.35			American	U. S. Navy	175.0	16.3		Balboa	Cristobal				
Cecil County [1]	8	15.35	9	7.25	9	16.20	9	16.20	American	Walker & Daly (S. B.)	431.0	59.2	24.0	San Pedro	Fall River	Crude oil	9,384	8,097	5,330
Delaware Sun [1]	8	22.00	9	7.58	9	17.32	9	17.32	American	Sun Oil Co	480.5	66.0	28.2	San Pedro	Chester	Crude oil	13,469	9,402	6,585
Chuky [1]	9	2.00	9	9.24	9	17.45	9	20.19	British	Chile Steamship Co	440.8	56.1	15.0	Tocopilla	Tampico	Ballast		7,691	4,723
Birk	9	11.10	9	12.07	9	21.10	9	22.43	Norwegian	Roderret Odfell	359.8	52.1	23.6	Antofagasta	Azores	Nitrate	6,800	4,751	3,160
India Arrow [1]	9	13.00	9	14.45	9	22.50	9	22.50	American	Standard Transport Co	468.3	62.7	28.6	San Pedro	Providence	Gasoline	11,505	10,084	7,426
Teno	9	12.50	10	6.17	10	14.45	10	17.18	Chilean	United Fruit Co	421.8	56.0	27.8	Valparaiso	New York	General	5,203	7,758	4,672
Bayehimo	9	16.10	10	6.46	10	15.15	10	17.20	British	Hudson Bay Co	229.2	36.0	13.6	Vancouver	England	Wheat	1,090	1,362	883
Nevadan	9	18.15	10	7.13	10	16.12	10	16.12	American	American-Hawaiian Line	368.6	55.2	24.0	Portland	Philadelphia	General	5,500	5,671	3,627
Cleveland [13]			10	8.25	10	17.20	11	6.09	American	U. S. Navy	309.0	44.0	18.0	Balboa	Cristobal				
Santa Ana	10	7.15	10	9.09	10	17.03	10	21.40	American	Grace Line, Inc	360.2	51.6	25.0	Talcahuano	New York	General	4,161	5,776	4,081
Cape Ortegal	10	8.30	10	9.29	10	17.20	10	18.30	British	Lyle Shipping Co	405.0	52.6	25.0	Caleta Coloso	St. Thomas [16]	Nitrate	7,504	5,650	4,071
Deroche [1]	10	12.00	10	12.46	10	20.25	11	5.00	American	Union Oil Co. of California	435.0	56.0	28.0	Los Angeles	New York	Crude oil	10,000	7,452	5,199
Eldorado	10	2.50	10	13.08	10	21.20	10	21.20	American	Swayne & Hoyt	245.6	42.0	16.7	Seattle	New Orleans	([17])	2,013	2,439	1,662
Shannonmede	10	12.30	10	14.25	10	22.15	10	23.45	British	D. & T. G. Adams	390.0	53.3	23.0	Mejillones	St. Thomas [16]	Nitrates	6,800	5,431	4,043
Solana [1]	10	12.15	11	6.12	11	13.55	11	13.55	American	Pacific Mail Steamship Co	419.0	56.5	26.10	San Pedro	Fall River	Crude oil	10,921	7,060	5,025
Andrea F. Luckenbach	10	23.00	11	7.23	11	16.45	11	16.45	American	Luckenbach Line	496.0	68.2	27.6	Portland	Philadelphia	General, lumber	4,000	11,487	8,762
Chincha	11	4.00	11	8.11	11	17.03	11	17.03	American	Argonaut Steamship Line	403.0	52.3	26.6	Seattle	Baltimore	General, lumber	7,000	6,872	4,973
Montrolite [1]	11	5.45	11	9.16	11	18.45	11	21.45	British	Imperial Oil Co., Ltd	421.4	57.3	26.3	Lobitis, Peru	Halifax	Crude oil	14,000	7,378	4,752
Atto	11	8.00	11	9.42	11	18.20	11	18.20	German	Roland Line	360.6	51.0	23.6	Corral	Antwerp	General	5,550	4,405	3,400
Silksworth	11	8.30	11	11.11	11	19.55	12	7.20	British	Dagliesh Steam Shipping Co	415.2	53.3	25.0	Taltal	Azores	Nitrates	7,500	6,530	4,623
Dinnamare	11	16.00	12	7.09	12	15.20	13	11.10	Italian	La Veloce Line	328.7	48.1	23.0	Valparaiso	Genoa	General	4,828	4,275	3,204
Halo [1]	12	6.45	12	8.47	12	16.20	12	16.20	American	Cities Service Corporation Co	435.0	56.0	27.0	San Pedro	Boston	Crude oil	10,000	7,434	5,093
Eastern Moon	12	3.30	12	9.04	12	17.10	12	18.00	American	U. S. & A. Line (S. B.)	384.8	51.2	13.10	Melbourne	New York	Wool, general	385	5,904	4,321
Sonora	12	7.00	12	9.39	12	18.20	13	8.03	French	Cie Generale Transatlantique	388.5	52.2	24.10	Caleta Colosa	Havre	General	7,879	6,394	4,515
El Norte [14]	12	8.30	12	9.20	12	17.52	12	17.52	Panaman	Enrique Hutaroo	60.0	15.0	5.5	Panama	Colon	Ballast		32	26
Robert E. Hopkins [1]	11	23.30	12	10.12	12	18.14	12	18.14	American	Tidewater Oil Co	424.4	58.2	25.10	San Pedro	New York	Crude oil	9,891	7,333	5,244
Ohioan	12	1.00	12	11.24	12	18.55	12	18.55	American	American-Hawaiian Line	407.7	53.7	22.0	Seattle	Boston	General	4,654	7,112	4,896
Shreveport [1]	12	14.00	12	14.37	12	22.25	13	4.15	American	Walker & Daly (S. B.)	435.0	56.0	26.0	Los Angeles	Fall River	Crude oil	9,589	7,411	5,103
Vixen [15]			12	15.00	13	16.11			American	Capt. C. W. Seifert	18.0	5.0		Balboa	Gatun Lake				
H. M. Flagler [1]	12	15.30	13	6.16	13	14.10	13	14.10	American	Standard Oil Co. of N. J.	461.6	60.0	27.6	Los Angeles	New York	Crude oil	11,900	8,450	6,089
Marija Racic	12	23.00	13	7.36	13	15.30	13	17.50	Jugo Slavic	G. Racich & Co	378.0	52.3	22.9	Taltal	Gibraltar	Nitrates	6,930	5,181	3,713
Rapot	13	1.00	13	8.02	13	14.10	13	16.12	German	Roland Line	393.4	54.3	26.4	Corral	Hamburg	Nitrate, general	7,900	6,583	4,660
Surichco	13	5.45	13	9.10	13	16.40	13	16.40	American	Transmarine Corporation	324.0	46.2	21.0	Seattle	New York	Lumber, general	3,543	3,984	2,612
Loreto [14]	12	21.15	13	10.28	13	18.42	14	11.52	British	Pacific Steam Navigation Co	406.2	54.2	26.6	Valparaiso	Havre	General	7,502	7,334	5,010
O-3 [12]	14	6.21	14	6.21	14	17.45			American	U. S. Navy	172.4	18.0		Balboa	Cristobal				

[1] Tanker. [12] Submarine. [13] U. S. S. [14] Motor ship. [15] Launch, went as far as Miraflores Lake. [16] For orders. [17] Box shooks and general.

O-7 [18]	14	6.21	14	6.21	14	17.45	....	....	American...	U. S. Navy	172.4	18.0	....	Balboa	Cristobal					
L-53	....	....	14	6.21	14	17.43	....	....	American...	U. S. Army	....	....	....	Balboa	Cristobal					
Breda	14	1.15	14	7.30	14	17.50	15	6.40	Dutch	Royal Dutch Steamship Co	402.6	58.3	27.0	Valparaiso	Hamburg	Nitrates, general.	8,828	7,384	5,226
R-26 [18]	....	....	14	7.44	14	17.42	....	....	American...	U. S. Navy	175.0	16.0	....	Balboa	Cristobal					
Agwistone [1]	14	1.45	14	8.13	14	17.34	14	17.34	American...	Ward Line	499.9	68.1	28.6	San Pedro	New York	Crude oil	14,271	10,853	7,804
Nevada	14	6.30	14	8.56	14	18.32	14	19.00	Freneh	Cie Generale Transatlantique	418.0	56.0	26.0	Seattle	Hull	General	7,502	7,500	5,298
Vacuum [1]	14	7.00	14	9.38	14	18.48	14	18.48	American...	Vacuum Oil Co	425.8	57.0	28.8	San Pedro	Philadelphia	Crude oil	10,000	7,473	5,034
Nora [1]	14	9.25	14	10.18	14	19.58	14	19.58	American...	Pan-Amer. Pet. & Transp. Co	485.0	62.0	29.0	San Pedro	New Orleans	Crude oil	14,000	9,918	7,467
Pomona	14	10.45	14	11.16	14	20.20	14	21.28	American...	United American Lines	440.0	56.0	26.0	Portland	New York	General, lumber.	8,620	8,300	6,026
Pelican [19]	....	....	14	6.00	14	8.34	....	....	American...	....	....	....	....	Balboa	Gamboa	....	....	....	....
Gothie Star	14	3.15	14	12.08	14	21.17	14	21.17	British	Blue Star Line	419.6	54.7	24.0	Tacoma	London	General	5,381	7,521	5,852
No. 285 [20]	....	....	14	12.28	14	18.25	....	....	American...	U. S. Navy	110.0	16.0	....	Balboa	Cristobal	....	....	....	....
R-23 [18]	....	....	14	13.18	14	21.40	....	....	American...	U. S. Navy	175.0	16.0	....	Balboa	Cristobal	....	....	....	....
Comerie	14	14.30	15	6.35	15	15.35	15	15.35	British	A. Weir & Co	412.6	55.5	28.0	Iquique	Charleston	Nitrate of soda.	10,420	7,186	5,335
Laura C. Hall	13	21.00	15	6.25	15	15.40	17	6.25	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	Platinum, gen.	(23)	132	72
O-8 [18]	....	....	....	6.22	15	15.22	....	....	American...	U. S. Navy	175.0	16.3	....	Balboa	Cristobal	....	....	....	....
O-4 [18]	....	....	....	6.22	15	15.22	....	....	American...	U. S. Navy	175 0	16.0	....	Balboa	Cristobal	....	....	....	....
Amalienborg	14	20.10	15	7.04	15	17.27	15	18.24	Danish	C. K. Hansen	325.0	47.2	21.6	Mejillones	Danzig	Nitrate of soda.	4,540	3,567	2,460
Schwarzwald	15	12.05	15	7.14	15	17.15	16	4.45	German	Hamburg-American Line	399.6	54.2	26.6	Taltal	Hamburg	Nitrate	77,00	6,571	4,607
La Paz [21]	15	4.35	15	8.06	15	17.50	15	19.34	British	Pacific Steam Navigation Co	486.0	54.0	27.4	Valparaiso	Havre [22]	General	8,415	7,216	4,912
Jamaica	14	23.20	15	9.12	15	17.30	....	....	British	Pacific Steam Navigation Co	229.0	33.1	11.8	Tumaco	Cristobal	General	440	1,187	622
Holger	15	9.15	15	10.11	15	18.37	15	19.00	German	Roland Line	423.5	53.2	25.0	Seattle	Hamburg	Wheat, general	7,500	6,451	4,693
Imlay [1]	15	11.00	15	11.44	15	20.05	15	20.05	American...	C. D. Mallory & Co	425.8	57.0	28.0	San Pedro	Baton Rouge	Crude petroleum	10,300	7,218	4,959
Dorothy Luckenbach	15	13.15	15	13.53	15	21.55	15	21.55	American...	Luckenbaeh Line	448.9	60.2	28.0	San Pedro	New York	Lumber, general.	7,000	9,294	6,861

[1] Tanker. [18] Submarine. [19] Launch. [20] Sub-chaser. [21] Motor ship. [22] For orders. [23] Cargo value $65,390.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
December 9.	Abangarez	United Fruit Co	New Orleans via Habana.
December 9.	Toloa	United Fruit Co	Port Limon.
December 10.	Quail [24]	U. S. Navy	New London.
December 10.	Tivives	United Fruit Co	Santa Marta.
December 11.	Calamares	United Fruit Co	New York via Habana.
December 11.	San Blas	United Fruit Co	Boston via Habana.
December 11.	Turrialba	United Fruit Co	New Orleans via Habana.
December 12.	Crynssen	Royal Netherlands W. I. Mail	Hamburg via wayports.
December 12	Ulysses [25]	Panama Railroad Steamship Line	Norfolk.
December 12.	Camden	United Fruit Co	Galveston.
December 13.	Santa Marta	United Fruit Co	Santa Marta.
December 13.	Metapan	United Fruit Co	New York via Kingston.
December 13.	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
December 14.	Crynssen	Royal Netherlands W. I. Mail	Port Limon.
December 15.	Coronado	Elders & Fyffes, Ltd	Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
December 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
December 9.	Toloa	United Fruit Co	New York via Habana.
December 9.	Abangarez	United Fruit Co	New York via Bocas del Toro.
December 11	Tivives	United Fruit Co	New Orleans via Bocas de Toro.
December 12	San Blas	United Fruit Co	Boston via Port Limon.
December 12	Calamares	United Fruit Co	Port Limon.
December 12	Crynssen	Royal Netherlands W. I. Mail	Port Limon.
December 13	Santa Marta	United Fruit Co	New York via Kingston.
December 13	Turrialba	United Fruit Co	New Orleans via wayports.
December 14	Metapan	United Fruit Co	New York via wayports.
December 14	Camden	United Fruit Co	Baytown and wayports.
December 15	Coronado	Elders & Fyffes, Ltd	Kingston.
December 15	Crynssen	Royal Netherlands W. I. Mail	Amsterdam via wayports.
December 15	Lurline [24]	Ore Fruit Steamship Co	Bluefields, Nic.

[24] Tug. [25] Collier.

PORT OF BALBOA.

December 9.	Strombus [1]	Anglo-Saxon Petroleum Co	San Pedro.	December 11	Strombus [1]	Anglo-Saxon Petroleum Co	San Pedro.
December 15.	Akera [1]	Anglo-Saxon Petroleum Co	San Pedro.				

[1] Tanker.

* Other than ships passing through the Canal.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective December 10, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, heavy, in drums	Gal.	.475
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Official Circular.

Acting Marine Superintendent.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., December 17, 1923.

To all concerned— Effective this date and during the absence of Capt. A. W. Hinds, U. S. N., on leave, Commander R. S. Culp, U. S. N., in addition to his duties as Port Captain, Cristobal, will be Acting Marine Superintendent, The Panama Canal.

JAY J. MORROW,
Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., December 26, 1923. No. 20.

Traffic Prospects.

The following forecast of the progress of traffic through the Panama Canal has been compiled from information furnished by local steamship agents and from other sources. Eleven local steamship agencies which replied to the questionnaire addressed to them reported that they handled 214 transits in October, 216 in November, and expected 217 in December. This covers less than one-half of the total traffic through the Canal. From the records of the Canal and various publications the following summary has been compiled:

UNITED STATES INTERCOASTAL TRADE.

No new information of importance relative to future oil shipments from Southern California has come to hand, but the oil business is holding up better than previous reports had given reason to expect. Shipments of California crude passing through the Canal in November totaled 833,555 tons, as compared with 780,882 tons in October and 909,879 tons in September. However, there is still reason to anticipate an early slump in this business.

Lumber shipments are holding up well and, as there is still a marked building boom in the eastern and central states, which promises to continue through the winter, with prospects of even greater activity next spring, northwest lumber should contribute materially to the traffic of the immediate future.

In a press bulletin issued for release on November 22, covering the employment of American vessels during the quarter ending October 1, 1923, the United States Shipping Board reported:

"In the intercoastal trade no actual changes have occurred in the number of vessels employed. The fleet presently engaged in this service consists of 5 passenger vessels of 26,980 gross tons, 145 cargo vessels of 827,094 gross tons, and 100 tankers of 781,309 gross tons, a total of 250 vessels and 1,635,283 gross tons."

The Garland Steamship Corporation, which has been operating 7 steamers in the intercoastal trade, has announced that it will withdraw them as they complete their advertised schedules and place them in the trans-Pacific trade. The line's last sailing from New York will be in March, 1924.

On the other hand, some of the remaining intercoastal lines are adding to their tonnage, and it has been announced on the Pacific coast that the United Fruit Co. will soon enter the intercoastal trade through a subsidiary steamship line to be known as the California Fruit Line.

CANADIAN INTERCOASTAL TRADE.

There have been press stories about another steamer assigned to the Canadian intercoastal trade. While this trade does not yet employ any considerable amount of tonnage, it has possibilities of development. The following quotation from the Toronto correspondent of *The Annalist* (issue of November 19) is of interest in this connection:

"British Columbia business men who are opposing the practice of the Dominion Department of Customs in classifying as foreign goods and collecting duty thereon merchandise shipped on steamers that on their way via the Panama Canal to Vancouver make New York a port of call, are having their cause championed by the Government of their own Province. The ground taken by the British Columbia Government, as reflected by a resolution introduced by Premier Oliver, is that the action of the Federal Department of Customs is a direct violation of the Canadian Constitution and inflicts an unnecessary hardship on both the producer in Eastern

(Continued on page 300)

CANAL WORK IN NOVEMBER.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of November, 1923:

BALBOA HEIGHTS, C. Z., December 17, 1923.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of November, 1923:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 436, averaging 14.53 per day. In addition to commercial transits, there were 10 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 25 transits of Government vessels on which no tolls were paid, making the total number of transits for the month 471. The daily average of all transits was 15.7.

Tolls for the month aggregated $2,058,188.61 on the 436 commercial vessels and $39 on the 10 launches, or a total on all traffic of $2,058,227.61. The amount of tolls collected during the month of November has been exceeded but once since the opening of the Canal, that being July of the present year, with a collection of $2,124,830.02 on commercial traffic and a total collection on all traffic of $2,124,849.27.

The average daily collection of tolls on commercial traffic during November, 1923, was $68,606.29, and $68,607.59 on all traffic. The average daily collection of tolls during the month was the highest since the opening of the Canal, that of July of the present year being the high average until this was made. July averages were: Commercial traffic, $68,542.90; all traffic, $68,543.52.

The total number of craft of all kinds transiting the Canal during the month of November, 1923, as compared with November, 1922, and November, 1921, is shown in the following tabulation:

	November, 1923.	November, 1922.	November, 1921.
Commercial vessels	436	294	222
Noncommercial vessels, Army and Navy	25	21	13
Launches (under 20 tons measurement)	10	5	4
Total vessels and craft through Canal	471	320	239

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	15	14	29
Pedro Miguel	24	17	41
Miraflores	18	14	32

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month to the end of November during the calendar years 1922 and 1923:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January	210	352	846,516	1,610,692	807,298	1,591,932	$847,767.55	$1,505,285.55
February	212	326	886,535	1,529,547	838,074	1,563,278	866,266.18	1,423,954.21
March	231	409	975,811	1,988,192	960,089	1,949,928	956,726.76	1,827,718.44
April	230	404	974,833	2,007,690	1,046,047	2,187,145	953,256.11	1,878,938.15
May	213	419	1,032,816	2,128,414	1,158,507	2,265,083	1,015,057.37	1,972,216.04
June	228	417	970,713	2,035,902	977,478	2,036,446	932,290.42	1,898,259.08
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	1,094,127.42	2,124,830.02
August	257	451	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,110	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,983,607.69
November	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
Totals	2,693	4,531	11,617,310	22,220,946	12,175,454	22,665,911	11,260,837.65	20,631,108.37

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in the direct service of the United States Government including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the 11 months of the present calendar year over the corresponding period of the past calendar year has been 68.25 per cent in point of number of vessels, 91.27 per cent in Panama Canal net tonnage, 86.16 per cent in cargo tonnage, and 83.21 per cent in tolls.

The following is a summary of the commercial traffic in November, 1923, as compared with the corresponding month in 1922 and 1921, and the average month's traffic for the fiscal year which ended June 30, 1923:

	November, 1923.	November, 1922.	November, 1921.	Average per month for fiscal year 1923.
Number of vessels	436	294	222	331
U. S. equivalent tonnage	1,774,350	1,062,725	753,697	1,247,208
Panama Canal net tonnage	2,193,865	1,337,280	942,411	1,550,482
Registered gross tonnage	2,820,420	1,669,486	1,184,157	1,969,412
Registered net tonnage	1,772,295	1,044,833	752,886	1,240,808
Tolls	$2,058,188.61	$1,264,436.54	$923,048.70	$1,459,016.63
Tons of cargo carried	2,218,295	1,426,860	855,440	1,630,656

The average daily number of transits, tonnage, tolls and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for fiscal year 1923.
	November, 1923.	November, 1922.	November, 1921.	
Number of transits	14.53	9.8	7.4	10.87
Panama Canal net tonnage	73,129	44,576	31,080	50,975
Tolls	$68,606.29	$42,147.88	$30,778.29	$47,967.67
Tons of cargo carried	73,943	47,562	28,515	53,611

From the foregoing it will be seen that the traffic in November, 1923, as compared with November, 1922, increased as follows: Number of commercial transits, 48.3 per cent; Panama Canal net tonnage, 64.05 per cent; tolls, 62.77 per cent and cargo 55.47 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls and cargo per vessel transiting the Canal during the month of November, 1923, as compared with November, 1922, and November, 1921, are shown in the following tabulation:

	Average per vessel.		
	November, 1923.	November, 1922.	November, 1921.
United States equivalent tonnage	4,068	3,614	3,395
Panama Canal net tonnage	5,032	4,548	4,245
Registered gross tonnage	6,538	5,678	5,334
Registered net tonnage	4,066	3,554	3,391
Tolls	$4,720.62	$4,300.80	$4,157.88
Tons of cargo (including vessels in ballast)	5,088	4,853	3,853
Tons of cargo (laden vessels only)	6,505	5,595	4,322

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of November for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
November, 1920	19	69,247	51,454	10	38,708	41,269	29	107,955	92,723
November, 1921	24	136,349	91,067	17	86,958	101,460	41	223,307	192,257
November, 1922	43	225,442	161,680	31	162,615	263,422	74	388,057	428,102
November, 1923	91	592,114	225,250	106	598,239	976,973	197	1,100,353	1,202,223

UNITED STATES SHIPPING BOARD VESSELS.

Nineteen vessels of the United States Shipping Board transited the Canal during the month of November, 1923; of these, 10 were employed in the United States intercoastal trade. Of the 19 vessels, 9 were tankers and 10 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of November for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
November, 1921	12	74,635	44,975	5	29,949	28,865	17	104,584	73,830
November, 1922	5	25,566	20,002	5	24,020	31,931	10	49,586	51,933
November, 1923	14	73,304	57,642	5	24,667	38,239	19	97,971	95,881

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of November, 1923, by principal geographical areas as compared with November, 1922, and November, 1921; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	November, 1923.	November, 1922.	November, 1921.
Origin, Pacific-bound tonnage.			
East coast of United States	788,313	449,080	301,680
Europe (including British Isles)	292,625	174,504	192,594
East coast of Mexico	35,838	13,035	14,997
Cristobal, C. Z.	9,314	17,692	18,444
East coast of South America	21,119	7,927	4,723
Miscellaneous	17,086	32,725	6,579
Totals	1,164,295	694,963	539,017
Destination, Pacific-bound tonnage.			
West coast of United States	682,188	274,095	211,585
West coast of South America	183,782	167,963	107,721
Australasia	109,885	73,004	78,493
Far East	112,522	98,280	95,216
Canada, west coast	62,994	53,434	36,428
West coast of Mexico and Central America	12,924	6,764	4,584
Miscellaneous	.....	21,423	4,990
Totals	1,164,295	694,963	539,017
Origin, Atlantic-bound tonnage.			
West coast of United States	741,357	244,902	189,942
West coast of South America	173,116	237,497	126,381
Australasia	44,145	22,547	6,581
Far East	11,273	43,148	23,556
Canada, west coast	55,177	86,035	54,413
West coast of Mexico and Central America	4,502	8,188	2,448
Miscellaneous	.....	.....	73
Totals	1,029,570	642,317	403,394
Destination, Atlantic-bound tonnage.			
East coast of United States	699,490	333,867	164,345
Europe (including British Isles)	229,655	254,212	196,974
East coast of Mexico	69,249	15,223	20,446
Cristobal, C. Z.	14,459	18,389	16,760
East coast of South America	950	490	4,796
Miscellaneous	15,767	15,725	73
Totals	1,029,570	642,317	403,394

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of November, 1923, on commercial traffic was $2,058,188.61. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,408,341.08, a difference of $350,113.47. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$51,744.54	$33,063.75	$84,808.29
Chilean	2,513.65	1,256.00	3,769.65
Colombian	[1] 9.30	15.85	6.55
Danish	2,062.30	1,905.20	3,967.50
Dutch	4,962.55	2,763.00	7,725.55
French	4,388.70	811.95	5,200.65
German	9,364.70	4,817.05	14,181.75
Italian	606.25	1,783.85	2,390.10
Japanese	3,872.55	2,003.30	5,875.85
Norwegian	[1] 342.05	4,951.25	4,609.20
Panaman	[1] .78	.....	[1] .78
Peruvian	3,315.75	2,212.85	5,528.60
Spanish	781.73	1,471.60	2,253.33
Swedish	.....	3,384.20	3,384.20
United States	71,779.46	134,633.57	206,413.03
Totals	155,040.05	195,073.42	350,113.47

[1] Indicates gains.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$55,810.65	$119,349.70	$175,160.35
United States foreign trade	15,162.16	14,637.22	29,799.38
United States to Canal Zone trade	806.65	646.65	1,453.30
Totals	71,779.46	134,633.57	206,413.03

Of the additional $350,113.47 that would have been assessed by using exclusively the Panama Canal rules of measurement, $9,654 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels, transiting the Canal in October, 1923, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, November, 1923.
British	.87	1.40	1.11
Chilean	.33	1.16	.60
Colombian	.10	1.38	1.00
Danish	.82	1.81	1.38
Dutch	.70	1.45	1.00
French	.61	1.51	1.01
German	.75	1.27	.97
Italian	.24	1.20	.88
Japanese	1.31	1.39	1.34
Norwegian	.....	1.74	1.74
Peruvian	.17	1.49	.84
Spanish	.05	.18	.13
Swedish	.....	1.53	1.53
United States	1.01	1.65	1.44
Average ratio, November, 1923	.91	1.57	1.30
Average ratio, November, 1922	.95	1.50	1.24
Average ratio, November, 1921	.83	1.22	1.08

The ratio of cargo tonnage of Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.45	1.65	1.09
United States and South America	.46	1.92	1.20
United States and Europe	.22	1.49	.86
United States and Far East	1.34	.89	1.29
Europe and South America	.42	1.19	.73
Europe and Canada	.51	1.54	.91
Cristobal and South America	.29	1.10	.89
United States and Australasia	1.01	.12	.94
United States and Canada	.72	1.49	1.34

COMMODITY STATISTICS.

Cargo moving through the Canal in November, 1923, totaled 2,218,295 long tons. This total has been exceeded but twice since the opening of the Canal; in May, 1923, with 2,265,083 tons and July, 1923, with 2,337,784 tons. Total cargo tons through the Canal in November, 1923, was about 55 per cent greater than the amount for November, 1922, which was 1,426,860 tons. There were 632,914 tons from the Atlantic to the Pacific as compared with 501,378 in November, 1922, and 1,585,381 from the Pacific to the Atlantic as compared with 925,482 in November, 1922. The Atlantic to the Pacific movement shows an increase of 131,536 tons and the Pacific to Atlantic an increase of 659,899 tons as compared with the cargo movement of the corresponding month of the previous year.

Mineral oils make up approximately 57 per cent of the Pacific to Atlantic cargo with 909,406 tons as compared with 803,994 tons in October, 1923, and 114,329 tons in November, 1922. Lumber, wheat, nitrates, ore and canned goods in the order named are the next heaviest items.

From the Atlantic to the Pacific manufactured goods with 176,505 tons is the heaviest item, with mineral oils, crude and refined, 75,095 tons, coming next. The movement of manufactured goods over this route in the corresponding month of last year was 111,612 tons showing an increase for November, 1923, of 64,893 tons; mineral oils for November, 1922, show 78,574 tons, a decrease for November, 1923, of 3,479 tons.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	November, 1923.	November, 1922.	November, 1921.
Atlantic to Pacific.			
Manufactured goods:			
Iron and steel	147,989	91,740	65,071
Railroad material	11,027	5,134	6,162
Machinery	11,889	10,673	3,806
Textiles	5,600	4,065	2,358
Mineral oils:			
Crude petroleum	14,304	20,841	30,144
Lubricating	8,377	8,691	1,739
Refined	52,414	49,042	47,944
Metal, various	25,980	14,519	10,052
Coal and coke	18,427	11,949	52,850
Cotton	19,360	11,617	20,807
Ammonia	6,102	2,312	7,447
Automobiles	8,745	2,462	727
Cement	13,353	6,976	5,233
Paper	9,251	7,831	2,900
Sulphur	20,870	16,825	2,500
Tobacco	4,183	4,263	2,075
Other and general	255,043	232,438	124,866
Totals	632,914	501,378	386,681
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	856,250	95,985	26,617
Refined	53,156	18,344	10,169
Nitrates	88,504	213,574	39,523
Lumber	108,583	85,676	50,564
Barley	16,901	50,676	37,989
Borax	2,163	.....	.....
Canned goods	51,242	57,533	34,045
Beans	10,548	7,189	9,221
Coffee	5,455	2,202	3,785
Cold storage	11,353	.....	.....
Metals, various	22,974	29,720	14,515
Ores, various	77,723	62,388	12,622
Rice	3,447	12,521	4,678
Cotton	5,679	4,703	4,894
Sugar	21,840	41,499	11,210
Wool	1,766	6,233	4,349
Wheat	95,591	83,073	110,831
Other and general	152,205	154,166	93,747
Totals	1,585,381	925,482	468,759

A detailed statement of traffic through the Panama Canal by trade routes for the month of November, 1923, was published in THE PANAMA CANAL RECORD for December 12, 1923. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of November, 1923, as compared with the same month in the years 1922 and 1921:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	November, 1923.	November, 1922.	November, 1921.	November, 1923.	November, 1922.	November, 1921.
United States intercoastal	91	43	24	106	31	17
United States and South America	15	17	12	19	25	11
Europe and South America	21	14	11	15	24	13
United States and Far East	18	19	17	2	8	4
Europe and United States	18	8	13	17	14	21
Europe and Canada	9	5	5	9	13	7
Europe and Australasia	8	6	8	6	3	1
United States and Australasia	9	4	5	1	2	.....
Mexico and South America	2	3	1	3	3	4
Cristobal and South America	6	6	10	6	7	10
United States and Canada	4	5	.....	2	4	.....
Miscellaneous	30	18	17	19	12	11
Totals	231	148	123	205	146	99
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	502,114	225,442	136,349	598,239	162,615	86,958
United States and South America	63,056	69,259	40,368	75,638	101,309	41,217
Europe and South America	98,331	59,087	42,473	67,405	96,781	51,947
United States and Far East	99,519	94,050	91,115	11,273	43,148	19,159
Europe and United States	81,613	38,246	57,229	83,863	69,603	96,647
Europe and Canada	48,931	25,226	28,102	44,151	67,815	37,043
Europe and Australasia	50,783	48,828	58,006	34,236	13,972	6,581
United States and Australasia	50,820	20,106	20,487	4,415	8,575	.....
Mexico and South America	10,106	13,035	5,051	15,551	13,719	20,446
Cristobal and South America	1,513	13,964	13,111	4,400	14,036	12,149
United States and Canada	20,150	24,511	.....	9,905	18,220	.....
Miscellaneous	137,359	63,209	46,726	80,474	32,524	30,888
Totals	1,164,295	694,963	539,017	1,029,570	642,317	403,394
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	225,250	164,680	91,067	976,973	263,422	101,460
United States and South America	27,239	14,081	14,878	145,034	173,157	44,225
Europe and South America	41,094	44,210	19,473	80,524	156,950	68,994
United States and Far East	132,956	102,237	116,028	10,051	42,710	23,080
Europe and United States	17,740	24,638	17,313	124,754	102,215	151,491
Europe and Canada	24,842	16,918	6,611	67,933	99,718	41,171
Europe and Australasia	37,576	45,119	48,400	39,325	13,900	5,775
United States and Australasia	51,415	21,986	21,659	590	6,100	.....
Mexico and South America	19,559	22,005	9,000	.....	.....	.....
Cristobal and South America	446	3,789	2,269	4,833	6,021	6,927
United States and Canada	10,180	26,604	.....	13,145	23,244	.....
Miscellaneous	44,617	15,111	39,983	122,219	38,085	25,636
Totals	632,914	501,378	386,681	1,585,381	925,482	468,759

LATIN-AMERICAN TRAFFIC.

This traffic shows an increase in November, 1923, as compared with November 1922. The Pacific to Atlantic traffic shows a decrease of $7,279.42 in tolls collected, and 16,550 tons of cargo carried. These decreases are more than offset by the increases in the Atlantic to Pacific movement, which are as follows: Tolls collected, $53,241.15, tons of cargo carried, 18,818. As compared with November, 1921, the increases are more considerable, being on total traffic as follows: Tolls collected, $211,664.89, cargo carried 267,632 tons.

The principal commodities from Latin-American points were nitrates, iron, ore, crude oil, sugar, copper, copper ore, and coffee in the order mentioned. To Latin-American points the principal commodities were crude oil, various manufactured goods, coal and coke, and cement in the order named.

Nitrate shipments from South America were 88,504 long tons as compared with 81,888 in October, 1923, and 173,324 in September, 1923.

In the tabulation below is shown the tonnage, tolls and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessels, together with the total in each direction for the years 1922 and 1921:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	20	61,817	75,201	99,924	61,496	$69,545.34	37,781
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	3,081
Colombian	3	735	747	1,881	1,313	707.94	33
Danish	2	3,054	4,573	5,191	3,025	3,452.45	1,583
Dutch	3	15,349	20,124	24,688	15,545	19,185.25	14,156
French	2	7,269	8,336	11,614	7,401	9,086.25	1,181
German	4	12,462	17,616	21,511	13,640	15,569.65	8,277
Italian	1	3,331	3,975	5,493	3,275	4,163.75	956
Japanese	2	7,991	8,781	11,691	7,840	9,988.75	7,595
Norwegian	2	5,982	6,882	9,316	5,844	4,955.04	.....
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	987
Spanish	4	11,205	12,925	17,787	11,999	10,369.39	208
United States	14	53,574	65,033	85,975	53,615	56,226.25	40,143
Totals, November, 1923	62	192,807	239,506	319,031	197,955	215,785.56	115,981
Totals, November, 1922	54	143,788	188,040	243,161	145,921	162,524.41	97,163
Totals, November, 1921	45	103,309	129,988	169,286	104,285	122,533.27	75,426
Pacific to Atlantic.							
British	26	101,267	119,276	163,668	102,661	122,368.18	167,264
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,436
Colombian	3	735	747	1,881	1,313	887.75	1,032
Danish	1	3,585	4,418	5,702	3,583	4,481.25	8,750
Dutch	1	4,641	5,521	7,283	4,580	5,891.25	9,268
French	1	4,326	4,363	5,903	3,743	5,235.60	6,697
German	4	13,840	16,638	19,948	12,241	17,028.30	20,732
Italian	2	6,011	7,748	10,164	5,912	7,513.75	9,321
Japanese	1	4,338	4,704	5,864	4,259	5,422.50	8,405
Norwegian	2	7,135	9,273	11,328	7,145	8,918.75	17,950
Peruvian	2	4,031	6,043	8,446	4,868	5,038.75	9,038
Spanish	1	4,120	5,518	7,578	4,402	5,159.00	989
United States	15	40,535	47,919	70,132	40,389	47,280.44	85,345
Totals, November, 1923	60	198,085	236,873	325,207	199,072	239,516.52	350,227
Totals, November, 1922	70	203,399	254,296	328,803	203,130	246,795.94	366,777
Totals, November, 1921	44	102,813	135,166	175,481	105,463	121,103.92	123,150

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 55.96 per cent of the total transits of the Canal during the month, comprised approximately 60 per cent of the net tonnage, and carried approximately 65 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in November, 1923, classified according to nationality of vessels by directions, and the combined traffic in both directions, together with totals for November, 1922, and 1921:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	62	251,664	320,059	404,125	254,851	$290,798.10	202,953
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	3,081
Colombian	3	735	747	1,881	1,313	707.94	33
Danish	3	7,311	9,914	11,841	7,272	8,773.70	6,095
Dutch	5	22,935	29,189	36,997	23,043	25,706.57	14,156
French	5	18,618	22,929	29,592	18,629	23,272.50	13,909
German	7	22,359	31,088	37,861	23,515	27,940.90	23,289
Italian	1	3,331	3,975	5,493	3,275	4,163.75	956
Japanese	9	37,081	43,070	55,979	36,528	43,343.13	44,118
Norwegian	10	36,777	43,558	52,106	32,766	33,284.45	.....
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	987

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Spanish	5	14,683	17,347	23,301	15,473	$13,553.23	208
United States	116	508,188	627,115	803,196	504,471	533,762.62	323,129
Totals, November, 1923	231	933,720	1,164,295	1,486,212	934,098	1,017,841.39	632,914
Totals, November, 1922	148	552,805	694,963	863,193	539,277	636,330.48	501,378
Totals, November, 1921	123	431,267	539,017	671,741	429,608	528,209.07	386,681
Pacific to Atlantic.							
British	43	172,254	206,988	277,266	173,717	211,101.93	275,877
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,436
Colombian	3	735	747	1,881	1,313	887.75	1,032
Danish	2	7,808	9,721	10,998	6,894	9,760.00	17,638
Dutch	2	10,404	13,140	16,621	10,388	13,005.00	19,018
French	4	17,669	18,617	23,692	14,873	21,547.65	28,184
German	5	18,758	23,318	28,064	17,128	23,164.55	29,758
Italian	2	6,011	7,748	10,164	5,912	7,513.75	9,321
Japanese	5	21,710	24,284	30,694	21,450	27,137.50	33,898
Norwegian	5	15,479	19,917	24,986	15,503	19,348.75	34,633
Peruvian	2	4,031	6,043	8,446	4,868	5,038.75	9,038
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	989
Swedish	2	4,964	7,991	8,184	6,238	6,205.00	12,267
United States	128	553,175	680,833	878,294	551,535	686,096.59	1,108,292
Totals, November, 1923	205	840,630	1,029,570	1,334,178	838,197	1,040,317.22	1,585,381
Totals, November, 1922	146	509,920	642,317	806,293	505,556	628,106.06	925,482
Totals, November, 1921	99	322,430	403,394	512,416	323,278	394,839.63	468,759
Combined traffic.							
British	105	423,918	527,047	681,391	428,568	501,909.03	478,830
Chilean	3	10,503	14,082	21,909	11,838	13,128.75	8,517
Colombian	6	1,470	1,494	3,762	2,626	1,595.69	1,065
Danish	5	15,119	19,635	22,839	14,166	18,533.70	23,733
Dutch	7	33,339	42,320	53,528	33,431	38,711.57	33,174
French	9	36,287	41,546	53,284	33,502	44,820.15	42,093
German	12	41,117	54,406	65,925	40,643	51,105.45	53,047
Italian	3	9,342	11,723	15,657	9,187	11,677.50	10,277
Japanese	14	58,791	67,351	86,673	57,978	70,480.63	78,016
Norwegian	15	52,256	63,475	77,092	48,269	52,633.20	34,633
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	4	7,052	11,953	17,807	9,968	8,815.00	10,025
Spanish	6	18,803	22,865	30,879	19,875	18,703.23	1,197
Swedish	2	4,964	7,991	8,184	6,238	6,205.00	12,267
United States	241	1,061,363	1,307,948	1,681,490	1,056,006	1,219,859.21	1,431,421
Totals, November, 1923	436	1,774,350	2,193,865	2,820,420	1,772,295	2,058,188.61	2,218,295
Totals, November, 1922	294	1,062,725	1,337,280	1,669,486	1,044,833	1,264,436.54	1,426,860
Totals, November, 1921	222	753,697	942,411	1,184,157	752,886	963,048.70	855,440

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. Panama Canal net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. Panama Canal net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	5	28,039	$18,748.08	2	9,551	$6,878.88
Dutch	1	4,395	3,164.40	.....	.....	.....
Norwegian	1	5,520	3,974.40	.....	.....	.....
United States	50	293,654	212,033.61	2	8,323	6,080.34
General cargo ships:						
British	13	61,233	48,736.12	.....	.....	.....
Colombian	2	412	305.94	.....	.....	.....
Danish	1	2,460	1,771.20	.....	.....	.....
Dutch	1	4,661	3,355.92	.....	.....	.....
Japanese	2	9,309	7,702.48	.....	.....	.....
Norwegian	8	34,745	25,238.45	.....	.....	.....
Panaman	1	26	19.50	.....	.....	.....
Spanish	4	13,503	9,781.98	.....	.....	.....
United States	2	13,645	9,860.31	.....	.....	.....
Totals	91	469,602	344,692.39	4	17,877	12,959.22

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of November, 1923, by kinds of vessels is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	5	22,608	$24,328.45	79	478,359	$501,887.30
Ballast	57	329,608	237,920.49	4	17,877	12,959.22
General cargo and passenger ships:						
Laden	135	672,085	648,820.55	122	533,334	525,500.72
Ballast	34	139,994	106,771.90	.....	.....	.....
Totals	231	1,164,295	1,017,841.39	205	1,029,570	1,040,347.22
Steamers	219	1,126,428	981,793.12	193	983,768	995,694.72
Motor ships	8	37,620	35,815.83	9	44,703	43,350.00
Motor schooners	4	247	232.44	2	149	162.50
Cable ship	.....	.....	.....	1	950	1,140.00
Totals	231	1,164,295	1,017,841.39	205	1,029,570	1,040,347.22

Of the 412 steam vessels, 295 were oil burners, 113 coal burners, and 4 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statements show the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of November, 1923. Had tolls been assessed against these vessels at commercial rates the amounts would would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	1	[1] 3,500	$1,750.00	1	[1] 14,000	$7,000.00
Submarines	1	[1] 520	260.00	7	[1] 3,565	1,782.50
Supply ships	1	[2] 3,059	3,823.75	.....	.....	.....
Transport	1	[2] 3,908	4,885.00	1	[2] 3,908	4,885.00
Tugs	7	[1] 7,000	3,500.00	1	[1] 1,000	500.00
U. S. Army vessels:						
Launch	1	[1] 20	10.00	.....	.....	.....
Mineplanter	1	[1] 1,208	604.00	.....	.....	.....
Transports	.....	.....	.....	2	[1] 9,342	11,677.50
Totals	13	15,307	14,832.75	12	31,815	25,845.00

[1] Displacement tonnage. [2] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	7,284
Pacific to Atlantic	2,542
Total	9,826

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	9	42	$36.00
Pacific to Atlantic	1	4	3.00
Totals	10	46	39.00

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of November, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons..	59,115	56,584	115,699
Local cargo shipped....tons..	3,227	203	3,430
Transit cargo arriving....tons..	2,183,298	2,269,306	4,452,604
Transit cargo clearing....tons..	2,173,632	2,222,888	4,396,520
Cargo received for transshipment....tons..	19,177	143	19,320
Cargo transshipped....tons..	20,965	404	21,369
Vessels supplied with bunker coal:			
Army vessels....	2	1	3
Commercial, other than Panama Railroad....	50	6	56
Total vessels supplied with coal....	52	7	59
Coal supplied to above vessels:			
Army vessels....tons..	49	50	99
Commercial, other than Panama Railroad....tons..	12,242	27	12,269
Total coal supplied to vessels....tons..	12,291	77	12,368
Coal issued, miscellaneous:			
Panama Canal departments....tons..	247	2	249
U. S. Army and Navy, excepting vessels....tons..	636	.....	636
Individuals and companies....tons..	226	.....	226
Total coal issued from Panama Canal deposits:			
November, 1923....tons..	13,400	79	13,479
November, 1922....tons..	14,445	2,108	16,553
November, 1921....tons..	15,878	1,962	17,840
Coal on hand, December 1, 1923....tons..	91,211	.....	91,211
Coal on hand, November 1, 1923....tons..	80,488	.....	80,488
Coal received during the month....tons..	24,123	[1]79	24,202
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	5,865.36	22,866.34	28,731.70
Panama Railroad Co....bbls..	1,518.21	447.86	1,966.07
Army and Navy....bbls..	409.10	146.59	555.69
Returned to Union Oil Co....bbls..	.....	153.66	153.66
Total issues and sales....bbls..	7,792.67	23,614.45	31,407.12
Fuel oil received during November, 1923....bbls..	.....	17,861.29	17,861.29
Fuel oil on hand, December 1, 1923....bbls..	45,196.19	25,203.89	70,400.08
Diesel oil sold during November, 1923....bbls..	48.48	.....	48.28
Diesel oil on hand, December 1, 1923....bbls..	41,785.32	780.65	42,565.97
Oil pumped for individuals and companies....bbls..	531,346.44	673,312.44	1,204,658.88
Miscellaneous transfers....bbls..	386.06	463.02	849.08
Gasoline pumped for individuals and companies....bbls..	.....	1,842.87	1,842.87
Gasoline pumped for Panama Canal....bbls..	1,402.14	946.86	2,349.00
Total fuel oil and gasoline handled....bbls..	540,975.59	717,887.27	1,258,862.86
Admeasurement of vessels:			
U. S. equivalent issued or made....	24	7	31
Measured for Panama Canal net tonnage....	4	2	6
Remeasured for Panama Canal net tonnage....	17	6	23
Panama Canal net tonnage corrected....	11	6	17
U. S. equivalent tonnage corrected....	22	8	30
Services of harbor equipment:			
Tugs, total operating hours....	411¾	550	961¾
Launches, total operating hours....	1,332½	1,567½	3,900
Scows, total operating days....	.....	22½	22½
Revenue from tug service, pilotage, etc.:			
Tug service....	10,982.50	9,703.75	20,686.25
Pilotage....	12,662.00	7,510.00	20,172.00
Seamen....	7,672.00	7,152.00	14,824.00
Launch service....	2,076.50	2,867.50	4,944.00
Wharfage....	.....	4,664.65	4,664.65
Ships measured....	105.00	50.00	155.00
Miscellaneous cash collections....	1,480.70	1,081.00	2,561.70
Vessels repaired at Panama Canal shops:			
Commercial....	40	23	63
U. S. Army and Navy....	7	8	15
Canal equipment....	5	17	22
Vessels drydocked:			
Commercial....	7	2	9
U. S. Army and Navy....	.....	2	2
Canal equipment....	3	2	5
Clearances issued....	253	242	497
Bills of health issued....	258	242	500

[1] Borrowed from Navy deposits.

ALL VESSELS ENTERING AND CLEARING PORTS.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal.	488	3,136,182	1,967,561	456	2,955,804	1,853,664
Vessels entering port but not transiting Canal.	50	277,053	163,764	10	67,768	42,225
Vessels transiting Canal and handling passengers and cargo at terminals	70	399,817	245,023	51	281,684	169,501
Ships clearing.						
All vessels including those transiting Canal.	489	3,149,835	1,971,492	450	2,971,249	1,842,879
Vessels entering port but not transiting Canal.	53	292,503	173,140	10	72,489	44,759
Vessels transiting Canal and handling passengers and cargo at terminals	70	403,377	247,333	49	270,657	162,717

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Total.	First class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,193	1,139	2,332	34	90	124
From Pacific ports	111	41	152	141	112	253
Total disembarking	1,304	1,180	2,484	175	202	377
Embarking:						
For Atlantic ports	786	943	1,729	17	2	19
For Pacific ports	121	58	179	94	66	160
Total embarking	907	1,001	1,908	111	68	179
Remaining on board vessels:						
From Atlantic to Pacific ports	1,225	2,569	3,794	1,476	2,847	4,323
From Pacific to Atlantic ports	617	1,000	1,617	731	1,049	1,780
From Atlantic to Atlantic ports	345	77	422	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	19	167	186
Total remaining on board	2,187	3,646	5,833	2,226	4,063	6,289
Total passengers arriving	3,491	4,826	8,317	2,401	4,265	6,666
Total passengers departing	3,094	4,647	7,741	2,337	4,131	6,468

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of November, 1923:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$47.93	$266.98	$560.85	$96.58	.....	$972.34
Panama Railroad vessels	99.90	26.27	2,219.22	1,047.55	539.43	3,932.37
Other commercial vessels	1,050.40	5,310.93	11,208.14	173.38	1,065.99	18,808.84
Total sales, November, 1923	1,198.23	5,604.18	13,988.21	1,317.51	1,605.42	23,713.55
Total sales, November, 1922	894.40	4,217.87	12,798.55	.....	1,907.60	19,818.82
Total sales, November, 1921	1,449.64	5,296.31	21,260.75	.....	1,528.98	29,535.68
Sales at Balboa to:						
U. S. Government vessels	303.58	1,219.54	11,400.61	164.04	1,136.46	14,224.23
Other commercial vessels	694.69	1,957.82	6,695.41	497.51	3,495.59	13,341.02
Total sales, November, 1923	998.27	3,177.36	18,096.02	661.55	4,632.05	27,565.25
Total sales, November, 1922	412.93	1,875.08	14,151.02	30.85	1,514.24	17,984.12
Total sales, November, 1921	365.22	598.34	6,015.29	2,882.26	198.64	10,059.75

The aggregate sales to government vessels during the month were $15,196.57; to Panama Railroad vessels, $3,932.37; to other commercial vessels, $32,149.86; making a grand total sales to vessels of $51,278.80.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of November, 1923, as compared with the same month in 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South	Total.	North.	South.	Total.	Nov. 1923.	Nov. 1922.	Nov. 1921.
Gatun	202	225	427	14	6	20	447	300	226
Pedro Miguel	203	232	435	12	14	26	461	319	256
Miraflores	204	232	436	10	10	20	456	316	255
	Number of vessels put through locks.								
Gatun	212	240	452	33	26	59	511	327	258
Pedro Miguel	206	233	439	38	25	63	502	352	300
Miraflores	206	233	439	32	22	54	493	361	298

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
U. S. Army and Navy vessels	30	22	22
Panama Canal equipment	29	41	32

The total consumption of water for lockages, loss in leakages, and maintenance was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockage	1,798,620,000	1,614,870,000	1,449,120,000
Leakage	30,000,000	7,380,000	20,000,000
Maintenance	.....	28,360,000	5,040,000
Total consumption, November, 1923	1,828,620,000	1,650,610,000	1,474,160,000
Total consumption, November, 1922	1,247,670,000	1,209,890,000	968,220,000
Total consumption, November, 1921	869,420,000	894,560,000	850,440,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of November, 1923, are shown in comparative form:

Rainfall.	November, 1923.	November, 1922.	November—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Total for month:					
Pacific section	9.51	11.62	19.62	5.64	10.50
Central section	13.38	12.34	30.40	7.47	13.74
Atlantic section	19.10	17.77	38.48	6.70	21.58
Maximum recorded on any one day	7.68	8.83	[1] 12 25	.....	.....
Gatun Lake watershed	14 46	13.15	35.74	9.60	14.50
Chagres river watershed above Alhajuela	12.24	16.90	40.48	9.15	17.72
Maximum recorded for month at any one point	24.91	22.50	45.03	.....	.....
Minimum recorded for month at any one point	1.52	3.53	.....	1 52	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	6,774	5,875	11,300	2,267	4,739
Maximum momentary discharge for the month	33,415	35,995	[2] 82,000	.....	.....
Gatun Lake watershed total yield	14,708	14,273	24,488	8,673	13,583
Gatun Lake watershed net yield	14,342	13,869	23,950	7,995	13,112
Draft on Gatun Lake for lockages and power	2,649	2,265	2,649	[3] 1,066	[3] 1,985

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 to 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] Occurred on November 19, 1909. [3] Not including November, 1914.

SEISMOLOGY.

Seismic tremors were recorded on the 2d, 5th, 12th, 24th, and 26th.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	November, 1923.	November, 1922.	November, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,321,100	4,378,700	4,853,900
Miraflores steam plant	18,740	5,890	400
Power distributed to consumers ....KWH..	3,701,067	3,782,968	4,137,872
Loss of power in plants, accessories, transmission, and transformers....KWH..	638,773	601,612	716,428
Per cent of loss of power to gross output	14.72	13.72	17.3
Water consumption....cubic feet..	4,424,748,146	3,460,786,062	3,779,696,146
Oil consumption....barrels..	1,553.87	1,419	1,827

Twenty-five work orders covering electrical repairs and installations of electrical equipment on 22 vessels were completed during the month, as well as the usual operation, maintenance and repair work.

There were 273 work orders issued for work performed by the different sections of the Electrical Division during the month as compared with 351 issued during the month of October, 1923.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 52 vessels at Cristobal and 48 at Balboa. Of these, 10 were placed in dry dock at Cristobal and 6 at Balboa. The more important repair work during the month included the following:

A hard patch was installed over the hole in the side of the U. S. Navy submarine *O–5*, in Cristobal harbor, by the use of a coffer-dam.

Tug *Lurline* was dry-docked, copper sheathing repaired, new shoe and propellers installed, shaft bearings rebushed, air compressor overhauled, and bearings of main engines opened up and fitted.

The steamship *Amsterdam* was docked for bottom repairs, extending generally over her entire length, made necessary on account of grounding at Santo Domingo. About 120 plates are involved, approximately 20 requiring renewal. Considerable damage to floors, intercostals and frames is involved and buckled keelson plates are being faired at two locations. The shaft is being realigned, propeller tips straightened, and various auxiliaries repaired.

Routine overhaul of U. S. Navy submarine *O–6* was started and repairs to submarines *O–9*, *O–10*, and *O–1* carried forward. Submarine *O–10* was docked with the steamship *Amsterdam*.

During the month a large volume of work was performed in manufacturing spares in preparation for the forthcoming overhaul of the Atlantic Locks.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	November, 1923.			October, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	14	700	35,360	9	247	27,322
Steel	4	407	60,251	.....	93	27,017
Nonferrous	8	637	9,793	13	531	12,134

There were 571 job orders on hand at the beginning of the month, 699 were authorized during the month, and 622 were completed, leaving 648 on hand at the close of the month.

There were 345 standing orders on hand at the beginning of the month. None were authorized during the month, two were completed, leaving 343 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

	November, 1923.	November, 1922.	November, 1921.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	613,660,500	634,710,000	648,258,750
Filtration plants	369,218,000	359,932,000	382,858,000
Water consumed by Panama	88,133,000	84,945,000	93,862,000
Water consumed by Colon	46,103,000	56,028,500	48,221,250
Sales of water to vessels	10,358,872	7,811,311	10,220,274

DREDGING.

The general movement on West Culebra slide in November was unusually slight, the maximum movement toward the Canal on bank being 0.8 feet, between stations 1771 and 1773.

There was only slight movement along the water front on East Culebra slide.

Cucuracha slide and the slide south of Cucuracha were quiescent.

Several small breaks occurred through the Cut. Additional settlement occurred in the berm at 1820 west, pushing about 4,000 cubic yards of rock into the prism.

The slide at West Lirio (south) resumed activity on the afternoon of November 21, carrying about 250,000 cubic yards of rock into the Canal prism. This secondary movement extended over a frontage of approximately 700 feet, and at station 1734–50 reached to the east prism line, leaving a 30-foot channel 80 feet wide. By the morning of November 22, a channel 34 feet deep and 100 feet wide was available, and traffic was handled daily starting at 2 o'clock. There was no interruption of traffic with the exception of two ships held over from the 23d to the 24th, one an account of the narrow margin between her draft (33.6 feet) and the depth of the channel, 34 feet, and the other on account of her bad handling qualities. The total yardage removed from this slide since October 28 is 379,300 cubic yards, leaving 170,700 cubic yards still to be removed to complete the estimated excavation of 550,000 cubic yards within channel limits.

The total excavation during the month was 445,100 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
50,900	.....	50,900	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Gamboa.*
154,650	.....	154,650	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Paraiso.*
132,850	.....	132,850	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Cascadas.*
106,700	106,700	.....	Maintenance.....	Gaillard Cut, Culebra slides.....	*No. 86.*

VITAL STATISTICS.

A total of 161 deaths occurred during the month of November, 1923, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.81 per thousand. The leading causes of death were: pneumonia (broncho and lobar), 39; tuberculosis (various organs), 20; nephritis (acute and chronics), 11; cancer (various organs), 11. There were 5 deaths from apoplexy, 4 from bronchitis, and 2 from organic diseases of the heart. Of the total deaths, 66, or 41 per cent occurred among children under 5 years of age. There were 20 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 335 live births reported during the month and 16 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 34.46 per thousand population. Deaths among children under one year of age numbered 43, giving an infant mortality rate of 125.37 per thousand live births.

The total number of malaria cases reported during the month was 91. Of these, 3 cases were reported from Panama City, 5 from Colon, 59 from the Canal Zone, and 24 originated outside of our sanitated area. Of the total, 10 were employees, 28 nonemployees, and 53 were Army and Navy. There were two deaths from malaria, 1 charged to Colon and 1 to the Canal Zone.

OCCUPANTS OF QUARTERS.

The numbers of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of November 30, 1923.			Comparative totals.		
	Men.	Women.	Children.	November, 1923.	November, 1922.	November, 1921.
Americans	2,433	1,980	2,136	6,549	6,125	7,081
Europeans	64	29	71	164	191	275
West Indians	4,043	2,577	6,020	12,640	12,566	12,711
Totals, November, 1923	6,540	4,586	8,227	19,353	.....	.....
Totals, November, 1922	6,403	4,531	7,948	.....	18,882	.....
Totals, November, 1921	7,612	4,658	7,797	.....	.....	20,067

WORKING FORCE.

The following tabulations show the number of gold and silver employees as of November 21, 1923, together with a comparison of the working force for the preceding month and that of November, 1922:

	As of November 21, 1923.			Total employees.	
	Gold.	Silver.	Total.	October, 1923.	November 1922.
Operation and Maintenance:					
Office	27	34	61	63	61
Electrical	154	171	325	312	282
Municipal Engineering	70	436	506	524	584
Lock Operation	191	591	782	881	680
Dredging	149	860	1,009	1,004	901
Mechanical	387	794	1,181	1,129	955
Marine	169	510	679	607	555
Fortifications	12	57	69	67	116
Totals	1,159	3,453	4,612	4,587	4,134
Supply Department:					
Quartermaster	139	1,017	1,156	1,127	1,011
Subsistence	7	87	94	87	76
Commissary	172	800	972	941	913
Cattle Industry, plantations	5	135	140	177	147
Hotel Washington	8	87	95	91	86
Transportation	35	155	190	190	170
Totals	366	2,281	2,647	2,613	2,403
Accounting Department	189	8	197	193	193
Health Department	224	712	936	921	914
Executive Department	494	246	740	735	721
Totals	907	966	1,873	1,849	1,828
Panama Railroad:					
Superintendent	47	292	339	287	293
Transportation	64	114	178	170	164
Receiving and Forwarding Agent	71	898	969	986	916
Coaling Stations	63	500	563	431	716
Totals	245	1,804	2,049	1,874	2,089
Grand totals, November, 1923	2,677	8,504	11,181	.....	.....
Grand totals, October, 1923	2,746	8,177	.....	10,923	.....
Grand totals, November, 1922	2,517	7,937	.....	.....	10,454

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month a year ago, were as follows:

	November, 1923.	October, 1923.	November, 1922.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$328,643.23	$274,979.29	$169,596.37
For other Canal departments	8,740.21	9,625.49	3,589.83
Totals	337,383.44	284,604.78	173,186.20

	November, 1923.	November, 1923.	November, 1922.
Cash sales on the Isthmus:			
Stock	$19,327.30	$17,626.50	$23,611.74
Fuel oil	113.45	517.08	364.38
Scrap	273.25	648.86	612.42
Obsolete and second-hand material	576.64	697.87	5,840.64
Totals	20,290.64	19,490.31	30,429.18

SALVAGE OF THE UNITED FRUIT COMPANY STEAMER "SAN GIL."

The Salvage Section of the Marine Division completed during the month another highly creditable job.

At 5 o'clock in the morning of October 22, 1923, the steamer *San Gil* of the United Fruit Company en route from Boston to Cristobal, ran aground on a reef to the north of Old Providence Island, about 300 miles northwesterly from Cristobal. Requests were received for assistance and the wrecking tug *Favorite* was dispatched to her assistance at midnight of the same day.

The *San Gil* was found to be fast aground for her whole length with reefs showing dry on either side, ahead and astern. There were 16 feet of water and oil in the holds, the engines had been displaced so that they could not be used to assist in getting the ship off, and the boilers were also out of commission. It was eventually found possible to get up steam in the port boiler for the operation of the winches.

On account of the peculiar position of the ship it was first necessary to haul her for 520 feet over the reef into a lagoon and then out into deep water. This was accomplished, after various difficulties had been encountered and overcome, on the evening of November 15. Temporary repairs were made, sufficient with the assistance of the salvage pumps to keep the ship afloat, and the *Favorite* then towed the *San Gil* to Mobile, a distance of 1,115 miles, at an average speed of 7 knots, arriving on November 26.

Respectfully,

JAY J. MORROW,
Governor.

Simplified Quarantine Regulations.

To facilitate to the utmost the entrance, clearance, and transit of ships using the Panama Canal or its terminal ports, it has been arranged that vessels arriving after 10 p. m. and desiring to bunker may be taken to fuel docks in quarantine. The night can then be spent in bunkering, and at a suitable hour next morning the ships will receive quarantine inspection.

In order to avail themselves of this privilege, shipping agencies must first secure the permission of the Chief Quarantine Officer and furnish acceptable guarantee that no person or thing shall leave the ship during the time that she is in quarantine, and that the Panama Canal regulations with regard to rat-guarding and fending off will be strictly complied with.

Masters and surgeons of vessels will be required in future to swear to quarantine declarations. Vessels from clean ports, having a satisfactory sanitary history, and otherwise meeting sanitary requirements may be passed without quarantine inspection. This privilege does not extend to vessels from South American ports.

A new tariff schedule removes charges for night boarding up to 10 p. m., and fixes charges for fumigation of ships at actual cost of labor and material plus 10 per cent surcharge. Fumigations are now done exclusively with cyanogen chloride, which is efficient without being injurious to metals, fabrics or foods, and without health or fire hazard. It is believed that nowhere in the world is fumigation performed more efficiently, rapidly, or cheaply.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 22, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Olivia	15	4.20	16	6.15	16	13.42	17	2.35	American	Grace Line	404.6	53.9	23.6	Baltimore	San Francisco	General, steel	5,328	6,779	4,921
J. D. Rockefeller [1]	15	18.25	16	6.23	16	14.13	16	15.18	American	Standard Oil Co	458.3	60.0	19.6	New York	Los Angeles	Ballast		8,633	6,314
Edgar F. Luckenbach	15	23.52	16	7.10	16	14.36	16	15.40	American	Luckenbach Line	425.0	57.0	30.0	Mobile	San Diego	General	10,017	8,568	6,565
Agwihavre [1]	16	1.35	16	7.20	16	15.04	16	16.07	American	Atlantic Gulf & W. I. S. S. Co.	480.5	66.0	22.0	New York	San Pedro	Ballast		9,394	6,305
Port Elliott	16	2.45	16	8.35	16	16.00	16	17.13	British	Commonwealth & Dom. Line	469.0	58.0	22.0	New York	Auckland	General	2,600	9,775	6,840
Caddo [1]	16	6.20	16	8.28	16	15.50	17	1.04	American	Standard Oil Co	414.0	55.0	19.0	New York	Los Angeles	Ballast		6,437	4,442
Driebergen	16	6.45	16	9.25	16	17.14	16	18.18	Dutch	Furness Shipping Co	400.0	58.0	24.10	Neweastle	San Francisco	General	6,400	6,995	4,706
Leeds City	16	7.20	16	9.42	16	17.50	16	19.18	British	Reardon Smith Line	411.0	55.0	23.0	Pensacola	Auckland	General	5,600	6,224	4,428
Hawaiian	16	9.52	16	10.35	16	18.15	16	19.18	American	American-Hawaiian Line	406.8	51.1	26.0	Savannah	Seattle	General	6,000	6,039	4,180
H. M. Storey [1]	16	11.10	16	11.20	16	18.42	16	19.40	American	Standard Oil Co	500.0	68.2	21.0	New York	Los Angeles	Ballast		11,224	7,849
Hagan [1]	16	12.48	16	13.00	16	20.45	19	12.35	American	Strothers & Barry (S. B.)	416.9	56.2	27.0	New Orleans	San Francisco	Fuel oil	9,500	6,728	4,727
Moerdijk	15	12.03	16	14.00	16	20.46	16	21.45	Dutch	Holland-American Line	473.1	61.0	23.6	Rotterdam	Vancouver	General	5,431	9,165	7,056
Roland	16	13.40	17	6.15	17	14.22	17	15.42	German	Roland Line	377.8	50.10	21.0	Antwerp	Corral	General	3,262	4,791	3,374
Laura C. Hall [2]	15	15.40	17	6.25	17	14.18	18	18.54	British	Pacific Metals Corporation	81.0	25.0	9.0	Cristobal	Buenaventura	General	84	132	72
Jorge [3]	13	.....	17	6.04	17	15.01	18	18.54	Colombian	Cia Minera Pacifico	49.0	12.0	3.8	Cristobal	Buenaventura	Towing barge		25	19
Barge	13	.....	17	6.04	17	15.01	18	18.54	Colombian	Cia Minera Pacifico	60.6	14.3	3.1	Cristobal	Buenaventura	Ballast		27	22
Artagan Mendi	16	17.55	17	7.23	17	15.12	17	16.17	Spanish	Sota & Aznar	400.0	53.5	16.0	Barry	Vancouver	Ballast		6,003	4,333
Hesperos	16	21.20	17	8.25	17	15.47	17	17.30	Norwegian	Bruusgaard Kiosterud	389.8	54.1	15.6	Philadelphia	Mollendo	Explosives	147	5,693	4,230
Indien [4]	17	6.43	17	9.48	17	17.43	17	18.35	Danish	Orient Steamship Co	399.7	53.2	14.0	New Orleans	Iquique	Ballast		6,173	4,418
Marore [1]	17	8.50	17	10.30	17	19.20	17	20.26	American	Ore Steamship Co	550.3	72.2	25.6	Baltimore	Cruz Grande	Ballast		15,551	4,297
Suffolk	17	13.35	18	6.20	18	13.47	18	19.26	British	Federal Steam Navigation Co	460.0	58.3	24.6	Liverpool	Auckland	General	5,617	9,096	6,421
Persian Prince	17	22.40	18	6.55	18	14.40	18	19.06	British	Prince Line, Ltd	405.0	52.3	16.0	North Shields	Vancouver	Ballast		5,842	4,061
A. C. Bedford [1]	17	23.40	18	7.34	18	15.02	18	16.06	American	Standard Oil Co	500.0	68.0	21.0	New York	San Pedro	Ballast		10,846	7,688
Nowshera	18	6.12	18	7.42	18	16.01	18	17.03	British	British-India Steam Nav. Co	450.0	58.4	26.0	New York	Melbourne	General	5,093	8,207	5,427
Matinicock [1]	17	15.22	18	8.22	18	16.47	18	18.02	American	Standard Oil Co	459.0	60.0	21.0	New York	Los Angeles	Ballast		8,171	6,014
Chester Sun [1]	18	16.45	18	8.52	18	17.04	18	18.02	American	Sun Oil Co	429.3	59.2	19.8	New York	San Pedro	Ballast		7,684	5,249
D. G. Scofield [1]	18	9.22	18	9.55	18	17.36	18	18.24	American	Standard Oil Co	439.5	58.0	22.0	New York	Los Angeles	Ballast		8,698	6,013
Chickasaw City	17	22.30	18	10.03	18	18.04	18	19.06	American	Isthmian Steamship Lines	395.5	55.0	28.6	New York	Vancouver	General, steel	8,131	6,841	4,686
Hugoton [1]	18	9.53	18	11.00	18	18.22	18	19.26	American	C. D. Mallory & Co	434.8	56.2	20.6	Baton Rouge	San Pedro	Ballast		7,429	5,175
Eastern City	18	10.52	18	11.40	18	18.56	18	20.08	American	St. Just Steamship Co	400.0	53.0	17.2	New York	Brisbane	General	1,400	6,024	4,363
Orinoco	18	12.25	18	12.35	18	20.06	18	21.00	American	Oriental Navigation Co	376.4	52.3	24.6	Norfolk	Bremerton	Navy coal	6,796	5,455	3,902
L-53 [5]	.....	.....	18	.....	18	13.48	.....	.....	American	U. S. Army	.....	.....	.....	Cristobal	Balboa	Ballast		.....	.....
Rio Gatun [5]	17	.....	18	.....	18	13.07	.....	.....	Panaman	A. R. Eckhart	.....	.....	.....	Cristobal	Gatun Lake	Unknown		8	8
Manuel Calvo	17	17.07	19	6.10	19	13.48	19	14.43	Spanish	Spanish Line	435.0	48.0	19.8	Barcelona	Valparaiso	General	208	5,996	3,897
Satsuma	18	11.00	19	6.15	19	15.11	19	16.12	American	Barber Line	370.3	48.7	27.7	New York	Shanghai	General	6,885	5,370	3,810
Lisbon Maru	18	16.35	19	7.08	19	15.52	19	16.50	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.9	New York	Kobe	(6)	8,049	8,015	5,849
Artigas	18	17.10	19	7.27	19	16.13	19	17.14	American	Nawsco Line (S. B.)	390.0	54.0	18.10	Philadelphia	Seattle	General	1,569	6,204	4,314

[1] Tanker. [2] Motor schooner. [3] Tug. [4] Motor ship. [5] Launch. [6] Steel, oil and cotton.

K. R. Kingsbury [1]	18	17.17	19	8.26	19	17.02	19	17.50	American	Standard Oil Co	440.0	58.0	21.0	New York	Los Angeles	Ballast		9,033	5,938
Harold Walker [1]	19	1.30	19	8.40	19	17.28	19	18.37	American	Pan-American Petroleum Co	430.0	58.2	21.6	New York	San Pedro	Ballast		6,973	4,658
Sunbeam [1]	19	6.12	19	9.35	19	17.55	19	18.42	American	Sun Oil Co	429.3	59.2	20.3	Chester	San Pedro	Ballast		7,709	5,481
Chilore [1]	19	6.46	19	9.45	19	18.35	19	19.44	American	Ore Steamship Co	549.0	72.0	22.3	Baltimore	Cruz Grande	Ballast		14,538	9,348
Laponia [7]	19	0.55	19	10.50	19	19.06	19	20.00	Swedish	G. Dillner	393.7	53.4	16.9	Philadelphia	San Francisco	Ballast		5,870	3,979
Paul Luckenbach	19	7.38	19	10.50	19	19.28	19	20.20	American	Luckenbach Line	471.1	59.2	22.0	New York	Seattle	General	6,000	9,027	6,539
Virginia Dollar	19	8.22	19	12.15	19	20.07	20	0.01	British	Robert Dollar Line	505.0	58.3	26.0	Newport News	San Francisco	General	5,858	9,936	7,042
Santa Teresa	19	20.25	20	6.30	20	13.51	20	14.58	American	Grace Line	360.2	51.6	23.6	New York	Valparaiso	General	2,322	5,726	4,086
Tymeric	19	15.18	20	8.25	20	15.41	21	7.23	British	Andrew Weir & Co	400.0	52.0	26.0	New York	Yokohama	General	7,300	6,102	4,530
Jamaica	15	17.30	20	8.43	20	16.23	20	18.50	British	Pacific Steam Navigation Co	220.0	34.0	11.2	Cristobal	Buenaventura	General	209	1,187	622
Nobel [8]	19	19.50	20	8.30	20	18.00	20	23.49	Norwegian	Partagas Steamship Co	140.0	28.6	12.0	Christiania	Antofagasta	Dynamite	440	396	307
Rotorua	20	5.40	20	9.55	20	17.41	22	0.05	British	New Zealand Shipping Co	525.0	61.4	22.6	London	Wellington	General	3,000	12,846	9,439
Texas Maru	20	8.50	20	10.45	20	19.08	21	11.19	Japanese	Kokusai Kisen Kaisha	425.0	53.0	28.6	Baltimore	Yokohama	Steel, cotton	8,658	6,899	5,139
Nordkyn	20	9.37	20	12.15	20	20.10	20	21.25	Norwegian	Gorrissen & Co	386.0	53.0	25.0	Baltimore	Yokohama	Iron and steel	6,945	5,890	4,120
Agwilake [1]	20	12.28	20	12.50	20	20.45	20	22.19	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	20.0	Boston	San Pedro	Ballast		9,802	6,957
Almagro	19	19.35	21	6.20	21	13.20	21	17.15	British	Pacific Steam Navigation Co	303.0	43.0	13.2	New York	Guayaquil	General	606	2,878	1,714
Baluchistan	20	17.30	21	6.31	21	14.22	21	17.54	British	Common Brothers	381.0	51.0	15.0	Genoa	San Pedro	Ballast		5,293	3,933
Montgomery City	20	23.15	21	6.55	21	15.03	21	16.07	American	U. S. Steel Products Co	442.2	56.2	26.2	New Orleans	Soerabaya	(9)	7,567	7,611	5,450
Cherry Branch	20	23.40	21	7.35	21	15.53	21	17.15	British	Nautilus Steamship Co	400.5	51.10	20.6	Liverpool	Corral	General	4,099	5,403	3,967
Gulfqueen [1]	21	2.40	21	8.22	21	16.14	21	17.15	American	Gulf Refining Co	419.5	56.5	18.0	Philadelphia	San Pedro	Ballast		6,890	5,029
Sugillenco	21	4.30	21	8.18	21	15.26	21	16.20	American	Transmarine Corporation	324.0	46.2	19.0	Port Newark	San Pedro	General	2,800	3,984	2,612
Dakotan	21	7.23	21	9.15	21	16.40	21	20.58	American	American-Hawaiian Line	407.7	53.7	19.0	Boston	San Francisco	General	3,804	7,156	5,058
Urubamba	17	17.23	21	10.10	21	17.07	21	20.07	Peruvian	Peruvian Line	381.2	41.0	19.0	Cristobal	Buenaventura	General	597	4,803	2,951
Venezuela	20	8.50	21	11.05	21	17.24	21	18.25	Italian	La Veloce Line	420.0	51.6	24.3	Genoa	Valparaiso	General	692	7,622	5,051
City of Para	27	15.40	21	12.35	21	19.39	22	20.45	Panaman	Pacific Mail Steamship Co	340.0	38.6	20.8	Cristobal	San Francisco	General	1,500½	3,739	2,459
Colombia	21	16.50	22	6.23	22	13.56	23	1.12	American	Pacific Mail Steamship Co	380.0	49.0	23.0	New York	San Francisco	General	2,133	6,015	4,281
Bochra	21	10.55	22	7.05	22	15.01	22	16.10	American	Barber Line	376.0	51.0	23.6	New York	Yokohama	General	5,874	5,158	3,813
Haarlem	21	11.55	22	8.15	22	16.06	22	17.10	Dutch	Royal Netherlands W. I. Mail	374.0	49.10	21.3	Hamburg	Valparaiso	General	4,750		
Fred W. Weller [1]	21	23.59	22	9.25	22	17.00	22	18.04	American	Standard Oil Co	500.0	68.0	18.0	Baltimore	San Pedro	Ballast		10,928	7,710
Ampullaria [1]	22	3.00	22	11.10	22	18.18	23	0.47	British	Anglo-Saxon Petroleum Co	412.5	53.8	19.0	London	San Pedro	Ballast		6,242	4,320
W. M. Irish [1]	22	12.05	22	12.15	22	19.19	22	20.19	American	Atlantic Refining Co	435.0	56.0	22.0	Philadelphia	San Pedro	Ballast			

[1] Tanker. [7] Motor ship. [8] Motor schooner. [9] General, steel, and cotton.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Santa Rosa	15	15.45	16	6.07	16	14.50	16	14.50	American	Pacific Mail Steamship Co	404.6	53.9	18.0	San Francisco	Norfolk	(12)	4,800	6,754	4,780
J. A. Bostwick [1]	15	19.00	16	6.56	16	16.20	16	16.20	American	Standard Oil Co. of N. J.	465.2	60.0	29.0	Talara	Vallo	(13)	11,367	8,511	5,981
Edgar Bowling	15	20.35	16	7.15	16	17.27	16	17.27	American	Garland Steamship Co	410.5	54.3	23.0	Grays Harbor	New York	Lumber, copper	4,885	6,567	4,909
Willpolo	16	2.00	16	7.40	16	17.50	16	17.50	American	Williams Steamship Co	386.8	52.2	24.4	Seattle	Philadelphia	Lumber, general	5,215	5,680	4,080
Romsdalshorn	16	3.45	16	8.10	16	18.30	16	19.10	Norwegian	Wessel Duval & Co	420.0	51.9	29.0	Antofagasta	Savannah	Nitrate	10,185	6,592	4,733
Acajutla	16	15.30	17	6.14	17	14.05	24	7.09	British	Pacific Steam Navigation Co	215.7	33.5	15.10	Champerico	Cristobal	General	672	1,273	706
Fulton [11]			17	6.43	17	15.30	17	15.30	American	U. S. Navy	225.0	35.0	14.0	Balboa	Cristobal				

[1] Tanker. [11] Submarine tender. [12] Hay, canned goods, and general. [13] Crude oil and naphtha.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Canadian Prospector	16	18.30	17	7.12	17	15.00	17	16.00	British	Canadian Gov. Mer. Marine	400.0	52.4	23.8	Vancouver	Portsmouth	Lumber, wheat	7,002	5,893	4,068
Foldenfjord [1]	16	21.25	17	7.51	17	16.00	17	20.35	Norwegian	General Petroleum Co	430.4	59.3	24.0	San Francisco	Rouen, France	Gasoline	8,711	7,780	5,520
Ares	16	22.20	17	8.09	17	16.20	19	3.05	Dutch	Royal Netherlands W. I. Mail	390.9	48.2	22.0	Valparaiso	Hamburg	Nitrate, general	4,974	4,385	3,195
Howick Hall	17	5.30	17	8.34	17	17.22	17	18.25	American	Isthmian Steamship Lines	400.8	51.5	24.3	Seattle	Liverpool	[17]	6,491	6,095	4,381
Urubamba	17	7.00	17	9.38	17	17.23	21	10.10	Peruvian	Peruvian Line	381.2	46.0	19.6	Callao	Cristobal	General	1,932	4,803	2,951
Venezuela	16	20.40	17	12.15	17	20.00	18	14.07	American	Pacific Mail Steamship Co	380.0	48.7	22.1	San Francisco	New York	General	2,000	6,033	4,353
Geddington Court	17	11.50	17	12.41	17	22.00	17	23.40	British	Andrew Weir & Co	374.1	51.3	23.0	Iquique	Falmouth	Nitrate	6,300	5,055	3,602
Remuera	16	23.30	17	14.37	17	22.10	17	22.10	British	New Zealand Steamship Co	485.0	62.3	27.0	Auckland	London	[18]	6,757	11,717	8,751
Hoxbar [1]	17	15.50	18	6.38	18	15.08	18	15.08	American	McAllister Brothers (S. B.)	434.8	52.2	27.0	San Pedro	New York	Crude oil	10,100	7,421	5,174
David McKelvy [1]	17	20.30	18	6.48	18	16.14	18	16.14	American	Tidewater Oil Co	430.0	59.2	28.0	San Pedro	New York	Crude oil	11,000	7,629	5,393
Minnesotan	17	21.30	18	7.08	18	16.30	18	16.30	American	American-Hawaiian Line	407.7	53.7	18.0	Seattle	Boston	General	2,238	7,150	4,913
San Ugon [1]	17	22.30	18	7.38	18	17.25	18	17.25	British	Anglo-Mexican Petroleum Co	412.0	53.4	24.6	San Pedro	London	Gasoline	7,615	5,976	4,069
Birmingham City	18	2.30	18	8.20	18	18.15	18	21.35	American	Isthmian Steamship Lines	395.5	55.0	26.6	Mejillones	New York	Nitrate	8,704	6,886	4,675
San Eduardo [1]	18	8.10	18	9.03	18	18.28	18	18.28	British	Anglo-Mexican Petroleum Co	420.2	54.6	26.0	San Pedro	Tampico	[19]	8,700	6,390	4,382
Vallarsa	18	10.45	18	11.35	18	19.48	18	21.45	Italian	Lloyd Mediterraneo Soc. de Nav.	400.2	52.3	26.0	Tocopilla	Cristobal [15]	Nitrates	7,646	5,733	3,996
Perene	16	16.30	18	14.20	18	22.55	19	2.10	Peruvian	Peruvian Line	284.1	39.1	18.6	Huacho	New York	[20]	2,470	2,168	1,529
Ardmore [1]	18	22.00	19	6.12	19	15.35	19	15.35	American	Standard Oil Co. of N. J.	449.5	59.6	27.0	San Pedro	New York	Crude oil	10,000	8,612	6,457
Boren	19	6.30	19	8.30	19	17.15	19	22.35	Swedish	Redefiaktiebolaget Transatlantic	377.8	54.2	23.8	Makato	Matuco	Phosphate	7,650	6,186	4,468
Atlantic Sun [1]	19	1.00	19	11.07	19	19.52	19	22.40	American	Sun Oil Co	429.3	59.2	27.0	San Pedro	Baltimore	Crude oil	10,673	7,567	5,283
Siberian Prince	19	10.30	19	11.20	19	20.05	19	20.05	British	Furness-Prince Line, Ltd	435.0	56.0	22.6	Victoria	London	General	6,687	6,267	4,565
Scopas [1]	18	22.30	19	12.34	19	20.55	19	20.55	Dutch	Anglo-Saxon Petroleum Co	427.0	53.1	24.0	San Pedro	Lands' End [15]	Gasoline	7,150	6,296	4,395
Munindies	16	15.00	19	13.20	19	21.55	19	21.55	American	Munson-McCormack Line	370.0	53.1	24.0	Portland	Baltimore	Lumber	3,397	5,525	4,097
Hofuku Maru	19	14.00	19	14.52	19	23.59	20	6.12	Japanese	Kawasaki Dockyard Co	385.0	51.0	29.9	Iquique	Fayal [15]	Nitrates	8,000	6,212	4,710
La Brea [1]	19	20.30	20	6.16	20	14.47	20	14.47	American	Union Oil Co. of California	435.0	56.2	26.6	Los Angeles	Philadelphia	Gasoline	10,000	7,150	4,765
Cissy	19	23.35	20	7.18	20	16.00	20	16.00	Norwegian	N. O. & S. A. S. S. Co	289.5	44.2	20.6	Talcahuano	New Orleans	[21]	3,466	2,976	2,119
Peru [13]	20	0.50	20	8.06	20	17.18	20	20.30	Danish	East Asiatic Co., Ltd	425.3	55.2	28.0	Vladivostok	Copenhagen	General	9,054	7,407	5,660
Ebro	20	11.45	20	12.48	20	19.50	21	11.20	British	Pacific Steam Navigation Co	450.3	57.8	26.6	Valparaiso	New York	General	3,896	9,151	6,227
Japan Arrow [1]	20	12.30	20	13.18	20	21.35	20	21.35	American	Standard Transportation Co	468.3	62.7	28.0	San Pedro	Providence	Crude oil	12,222	10,084	7,426
Agwismith [1]	20	13.00	20	14.00	20	23.03	20	23.03	American	Ward Line	499.9	68.1	27.6	San Pedro	New York	Crude oil	14,500	10,853	7,736
T. J. Williams [1]	20	18.50	21	6.36	21	15.10	21	15.10	American	Standard Oil Co. of N. J.	465.4	60.8	27.6	San Pedro	New York	[22]	11,500	8,585	6,087
Cape Henlopen [1]	20	18.30	21	7.08	21	16.27	21	16.27	American	Pure Oil Steamship Co	434.8	56.2	27.0	San Pedro	Bayonne, N. J.	Crude oil	10,267	7,425	5,202
Collegian	21	0.30	21	7.25	21	16.30	21	17.18	British	T. and J. Harrison	455.4	56.3	25.6	Vancouver	Liverpool	General	8,400	7,712	5,437
Agwisea [1]	21	12.15	21	12.55	21	20.42	21	20.42	American	N. Y. & Cuban Mail S. S. Co	468.3	62.7	28.0	Los Angeles	Baltimore	[22]	11,557	9,802	6,961
Santa Paula	21	19.40	22	6.22	22	13.50	22	15.00	American	Pacific Mail Steamship Co	404.0	52.0	24.3	San Francisco	[16]	[23]	1,579	6,756	4,775
Sciota [14]			22	6.27	22	13.51	22	13.51	American	U. S. Navy	155.0	30.p		Balboa	Cristobal				

[1] Tanker. [13] Motor ship. [14] U. S. tug. [15] For orders. [16] East coast ports. [17] Grain, lumber, spelter, and canned goods. [18] Butter, cheese, and general. [19] Crude petroleum.
[20] Granulated sugar. [21] Nitrates, copper bars, and crude sodium sulphate. [22] Crude oil in bulk. [23] General, copper, and hay.

Hindustan	21	19.40	22	6.50	22	15.37	22	15.37	British	Hindustan Steamship Co	400.0	52.0	24.3	Vancouver	Falmouth	Wheat	7,200	5,826	4,154
Oroya	22	3.30	22	10.21	22	18.10	22	22.25	British	Pacific Steam Navigation Co	524.1	62.8	29.6	Valparaiso	Liverpool	General	8,099	13,133	9,064
Robin Gray	22	10.00	22	10.48	22	18.42	22	20.05	American	Seas Shipping Co	424.8	55.2	25.6	Honolulu	Philadelphia	General	7,701	7,472	5,542
Tacoma	....	.....	22	12.04	22	19.40	23	12.00	American	U. S. Navy	308.0	44.0	18.7	Balboa	Cristobal	.....	.....	.....	.....
E. T. Bedford [1]	22	12.13	12	13.05	22	21.30	22	21.30	American	Standard Oil Co. of N. J.	499.2	68.1	20.10	San Pedro	New York	Crude oil	15,500	11,009	7,967

[1] Tanker.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
December 16.	Cartago	United Fruit Co	New Orleans via Habana.
December 16.	Calamares	United Fruit Co	Port Limon.
December 16.	Tsad	Hamburg-American Line	Hamburg via wayports.
December 18.	Pastores	United Fruit Co	New York via Habana.
December 18.	Puerto Rico	Cie Generale Transatlantique	St. Nazaire via wayports.
December 18.	Asian	Leyland Line	Liverpool via wayports.
December 19.	Esparta	United Fruit Co	Boston via Habana.
December 19.	Suriname	United Fruit Co	New Orleans via Habana.
December 19.	Sixaola	United Fruit Co	New York via Kingston.
December 20.	Cartago	United Fruit Co	Bocas del Toro.
December 22.	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
December 22.	Irene S. Wilkinson [24]	Howard Lumber Co	High seas.

*DEPARTURES.

Date.	Vessel.	Line.	For—
December 16	Calamares	United Fruit Co	New York via Habana.
December 16	Ulysses [25]	Panama Railroad Steamship Line	Norfolk.
December 17	Tsad	Hamburg-American Line	Port Limon.
December 17	Cartago	United Fruit Co	Bocas del Toro.
December 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
December 19	Pastores	United Fruit Co	Port Limon.
December 19	Puerto Rico	Cie Generale Transatlantique	St. Nazaire via wayports.
December 20	Sixaola	United Fruit Co	Colombian ports.
December 20	Suriname	United Fruit Co	New Orleans via wayports.
December 20	Cartago	United Fruit Co	New Orleans.
December 20	Asian	Leyland Line	Houston.
December 20	Esparta	United Fruit Co	Boston via wayports.

[24] Schooner. [25] Collier.

PORT OF BALBOA.

December 16.	Atrato	Colombian Transport Co	Buenaventura.
December 18.	Memnon	General Steamship Corp. (S. B.)	Antofagasta.
December 22.	Guardian	All-America Cable Co	La Libertad.
December 17	Akera	Shell Oil Co. of California	San Pedro.
December 18	Altrato	Colombian Transport Co	Buenaventura.
December 19	Memnon	General Steamship Corp. (S. B.)	San Francisco.

* Other than ships passing through the Canal.

(Continued from page 279)

Canada and the purchaser in British Columbia. A simple way out of the difficulty would be the appointment of a Canadian customs official to New York, but this the Federal Goverment has so far refused to do. Now that the Government of British Columbia has joined forces with the provincial boards of trade in demanding the appointment of such an official, it is probable that the Federal authorities will comply."

PACIFIC NORTHWEST AND EUROPE.

Grain exports from the Pacific Northwest continue light as compared with previous years. Wheat from the United States and Canada for the 5 months from July to November has totaled 266,529 tons, as compared with 393,925 tons in 1922 and 477,112 tons in 1921. However, there are indications that exports of Canadian wheat through Vancouver during the winter months will be heavier than in previous years.

Barley from the west coast of the United States for the period July-November, 1923, totaled 136,852 tons, as against 237,681 tons in 1922 and 292,019 tons in 1921.

It is reported that the Johnson Line is building two new twin-screw motorships of 6,500 deadweight tons capacity, which will be ready for delivery early in 1924, and will be placed in the company's Pacific Northwest-European service. The Johnson Line will then have a fleet of 7 motorships in this trade.

FAR EAST.

Cargo moving through the Canal to the Far East in November totaled 132,956 tons, compared with an average of 101,226 tons for the preceding 3 months. This may indicate that the shipment of reconstruction material to Japan has at length set in. According to a recent notice in *Commerce Reports* with regard to conditions in Japan, "the postponement of permanent reconstruction pending the completion of plans by the Reconstruction Board will probably delay developments in this market until well after the first of the year."

SOUTH AMERICA.

Nitrate shipments during October and November totaled only 81,188 and 88,504 tons respectively, as compared with an average of 156,839 tons for July, August, and September. This is probably due to a stevedores' strike at the loading ports from September 22 to the middle of October. Reports from Chile are that production is limited only by the labor shortage in the nitrate fields, and that market prospects are excellent. Other typical exports, such as iron ore, crude oil, copper, copper ore, and cotton, all show heavier shipments from July to November, 1923, than during the corresponding period in either 1922 or 1921.

SUMMARY.

Apart from California crude oil, which is an uncertain quantity, the information at hand does not indicate either a decrease or a marked increase of traffic in the immediate future.

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs during the two weeks ended November 26:

Motor ships *Laura C. Hall*, *Atrato*, launch *Petrolio*, steamships *Sunugento*, *Armordale* launch *Anna*, steamships *Cecil County*, *Bennecom*, *East Wind*, U. S. S. *Guide*, steamship *Lena Luckenbach*.

In addition to the above vessels the following is a list of ships with more than minor repairs.

Steamships *Lancaster*, remove broken crank shaft from engine and build up new crank; disconnect valve gear, H. P., I. P., and L. P. connecting rods; examine and repair top and bottom brasses, repair thrust shoes, remove tail shaft, and install new shaft and propeller; disconnect and line up shafting; examine and repair air pump, calibrate steam gauges, repair revolution counter, boiler mountings, and remake joints in auxiliary steam and main steam lines; repair one life boat, and miscellaneous small repairs, needed in wake of damages; *Rotorura*, disconnect main engine guide shoe; remetal, fit, and reassemble; *Memnon*, renew bad order tubes in port boiler and repair brick work; *Perene*, manufacture and install foot brake on reversing engine; *Hagan*, repair throttle valve on main engine; calibrate steam gauges; uptake doors repaired and lined with asbestos; furnish services of diver and outfit to examine bottom of ship; *Kroonland*, remove I. P. valve stem; fit and install new valve stem;

Lio, open up H. P. turbine; roll out and adjust bearings; check clearances, remove 6 pair of turbine bearings, change 2 bearings in L. P. turbine, remetal 2 bearings; repair ice machine, and auxiliary condenser pump; repair boiler mountings, cargo discharge line valve and miscellaneous joiner repairs; *Acme*, renew and repair bad order tubes in boiler; repair brick work; *Ivernia*, remove L. P. slide valve; weld, fit, and install; straighten L. P. valve stem, renew packing in neck bushing; reassemble and test out; *Eastern Gale*, repair reversing engine bracket; braze gauge line, manufacture fittings for indicators, renew steam valve on anchor windlass.

PREVIOUSLY REPORTED.

Colombian coast guard cutter *No. 3*, launch *L–55*, steamship *Colon*, submarines *O–1* and *O–10*.

The following vessels were at the Cristobal shops for repairs during the week ended December 24:

Steamship *General W. C. Gorgas*, repair pump crosshead, steam pipe to galley in forward fidley, suction to No. 6 and No. 7 tanks, main engine water service pipe, heater pipe to room No. 25, bulkhead under general service pump, between deck starboard bunkers, fire tools, and chisels, valve stems, bulkheads, No. 6 lifeboat and plumbing; raise forward winches platform; install guards over No. 2 tank sounding pipes and renew pipe casing at No. 1 starboard winch; manufacture lumber for graving pieces, etc.; *Acajutla*, manufacture new piston with two rings, also two rings for spare for circulating pump; repair ice machine, 6 wooden and one iron blocks, and two boat davits; renew iron gauge pipe; manufacture ship side port screw, new rail for starboard gangway and one new hatch tarpaulin etc.; dredge *No. 86*, dock, clean, and paint, above and below water line; renew suction from cutter to bow; renew staybolts in one boiler; repair main engine, dynamo engine, winding engine, fire pump, and piping; renew loose bolts on ladder hinges; ream holes and fit bolts; examine and repair sea valves and piping under water line, etc.

Minor repairs—Steamships *Venezuela*, *Haarlem*, *Dockra*, and U. S. S. *Fulton*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 22, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Moerdijk	Holland-American Line	.....	December 16..	.....	1,196
Laura C. Hall	Pacific Metals Corporation	.....	December 17..	.....	103
Tsad	Hamburg-American Line	December 16..	December 17..	1,025	(1)
Calamares	United Fruit Co	December 16..	December 16..	43	135
Cartago	United Fruit Co	December 16..	December 17..	509	204
Venezuela	Pacific Mail Steamship Co	December 17..	December 18..	554	96
Ares	Royal Netherlands W. I. Mail	December 17..	December 18..	50	158
Manuel Calvo	Spanish Line	December 17..	December 19..	332	(1)
Cristobal	Panama Railroad Steamship Line	.....	December 19..	.....	1,563
Jamaica	Pacific Steam Navigation Co	.....	December 20..	.....	212
Urubamba	Peruvian Line	December 17..	December 21..	1,932	597
Acajutla	Pacific Steam Navigation Co	December 17..	.....	762	.....
Pastores	United Fruit Co	December 18..	December 19..	184	348
Puerto Rico	Cie Generale Transatlantique	December 18..	December 19..	221	333
Asian	Leyland Line	December 18..	December 20..	861	65
Almagro	Pacific Steam Navigation Co	December 19..	December 21..	363	152
Sixaola	United Fruit Co	December 19..	December 20..	212	233
Esparta	United Fruit Co	December 19..	December 20..	22	272
Suriname	United Fruit Co	December 19..	December 20..	519	(1)
Cartago	United Fruit Co	December 20..	December 20..	8	62
Venezuela	La Veloce Line	December 20..	December 21..	173	(1)
Peru	Danish East Asiatic Co	December 20..	December 20..	112	(1)
Ebro	Pacific Steam Navigation Co	December 20..	December 21..	8	135
Colombia	Pacific Mail Steamship Co	December 21..	December 22..	281	36
Haarlem	Royal Netherlands W. I. Mail	December 21..	December 22..	74	(1)
General W. C. Gorgas	Panama Railroad Steamship Line	December 22..	.....	2,126	.....
Oroya	Pacific Steam Navigation Co	December 22..	December 22..	33	76

[1] No cargo laded.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 22, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Munindies	Munson Line	December 16..	December 16..	1,822	.....
Venezuela	Pacific Mail Steamship Co	December 16..	December 17..	125	.....
Atrato	Colombian Transport Co	December 16..	December 18..	26	158
Acajutla	Pacific Steam Navigation Co	December 16..	December 17..	7	.....
Hagan	U. S. Shipping Board	December 16..	December 19..	10,000	.....
City of Para	Pacific Mail Steamship Co	December 21..	December 21..	.....	31
Colombia	Pacific Mail Steamship Co	December 22..	December 22..	18	.....

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective December 20, 1923:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., January 2, 1924. No. 21.

Traffic in December Greatest Since Opening.

Five hundred and six commercial vessels made the transit of the Canal in December, 1923. This exceeded the previous high record (July, 1923, with 474 ships) by 32 vessels, over one a day. The average per day in December was 16.32.

Tolls to the amount of $2,335,729.81 were paid on the 506 commercial transits and $61.50 on 16 launches, making a total tolls collection for the month of $2,335,791.31, exceeding that of any previous month since the opening of the Canal. July, 1923, is the nearest with a total collection on all traffic of $2,124,849.27.

The average daily collection of tolls for the month on all traffic was $75,348.11, and on commercial traffic only was $75,346.12. These are the highest averages for any month since the Canal has been in operation.

A comparison of the traffic in December with the other months of the year is afforded by the following tabulation:

	AGGREGATE MONTHLY.		DAILY AVERAGE.	
	No. of transits.	Tolls—Commercial vessels.	No. of transits.	Tolls.
January	352	$1,505,285.55	11.35	$48,557.60
February	326	1,423,954.21	11.64	50,855.51
March	409	1,827,718.44	13.20	58,958.66
April	404	1,878,938.15	13.47	62,631.27
May	419	1,972,216.04	13.52	63,619.87
June	417	1,898,259.08	13.90	63,275.30
July	474	2,124,830.02	15.29	68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,335,729.81	16.32	75,346.12
Total calendar year 1923	5,037	22,966,838.18	.....	.....
Averages calendar year 1923	419.75	1,913,903.18	13.80	62,922.87

Over 5,000 Ships in 1923.—New Records.

Traffic through the Panama Canal in the calendar year ending December 31, 1923, exceeded that in any previous year. The number of commercial vessels making the transit during the year was 5,037. Their aggregate net tonnage, Panama Canal measurement, was 24,737,437 tons. They carried 25,160,545 tons of cargo, and paid $22,966,838.18 in tolls.

As compared with the year 1922, the traffic in 1923 increased as follows: Number of ships, 68.07 per cent; Panama Canal net tonnage, 90.38 per cent; tons of cargo, 83.51; tolls collected, 82.65 per cent.

A brief summary of the commercial traffic through the Canal during the past year, as compared with that for previous calendar years, is given in the following table:

Calendar year.	No. of ships.	Panama Canal net tonnage.	Tolls	Tons of cargo.
1914 [1]	350	1,284,293	$1,508,737.56	1,758,625
1915 [2]	1,154	3,902,592	4,297,467.11	4,893,422
1916 [2]	1,217	3,817,704	3,671,162.68	4,774,822
1917	1,960	6,217,054	6,107,696.63	7,443,610
1918	2,070	6,409,886	6,317,455.39	7,284,159
1919	2,133	6,943,087	6,973,095.30	7,477,945
1920	2,814	10,378,265	10,295,362.21	11,236,119
1921	2,783	11,435,811	11,261,098.80	10,707,005
1922	2,997	12,992,573	12,573,407.77	13,710,556
1923	5,037	24,737,437	22,966,838.18	25,160,545
Grand total	22,515	88,118,702	85,972,321.63	94,446,808

[1] Canal opened to traffic, August 15, 1914. [2] Canal closed approximately 3 months by slides.

Monthly and daily averages of number of ships, Panama Canal net tonnage, tolls, and tons of cargo, during the past 4 years are shown in the following table:

Average per month.	No. of ships.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Calendar year 1920	234.5	864,855	$857,946.85	936,343
Calendar year 1921	231.9	952,984	938,424.90	892,250
Calendar year 1922	249.7	1,082,714	1,047,783.98	1,142,546
Calendar year 1923	419.75	2,061,453	1,913,903.18	2,096,712
Average per day.				
Calendar year 1920	7.69	28,356	28,129.40	30,700
Calendar year 1921	7.62	31,331	30,852.33	29,334
Calendar year 1922	8.21	35,596	34,447.69	37,563
Calendar year 1923	13.80	67,774	62,922.87	68,933

TRAFFIC DURING FIRST AND SECOND HALVES OF YEAR.

Commercial vessels making the transit during the first 6 months of the year totaled 2,327. The monthly and daily averages for the period were 387.83 and 12.86, respectively.

In the second 6 months the number of commercial ships was 2,710. The average per month was 451.66, and the average per day 14.73.

Tolls for the first 6 months aggregated $10,506,371.47, giving monthly and daily averages of $1,751,061.91 and $58,046.25, respectively.

In the second 6 months the tolls aggregated $12,460,466.71. The average per month was $2,076,744.45 and the average per day, $67,719.92.

EAST AND WESTBOUND TRAFFIC.

A total of 2,714 vessels transited the Canal from the Atlantic to the Pacific, as compared with 2,323 from the Pacific to the Atlantic. In the calendar year 1922, Atlantic to Pacific transits numbered 1,630 and Pacific to Atlantic transits, 1,367.

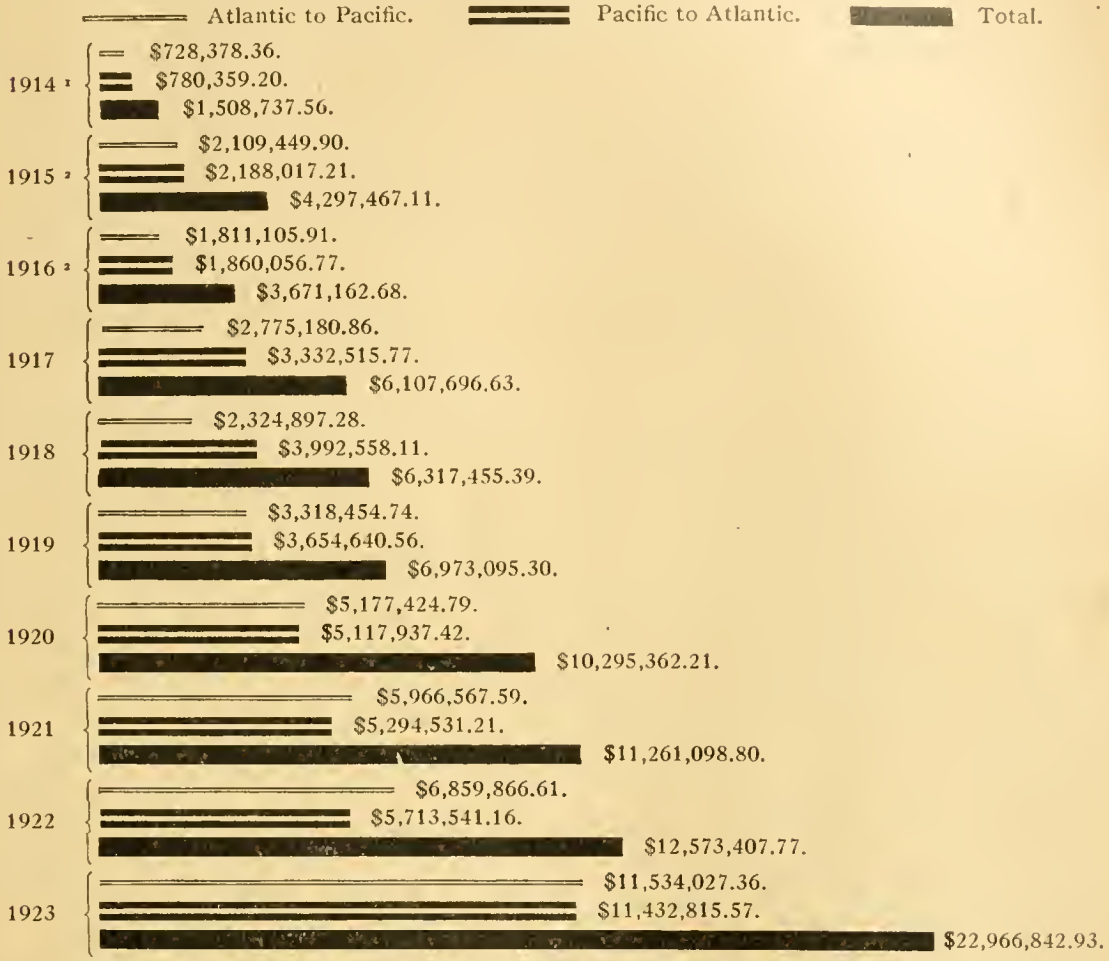
In tolls, $11,534,022.61 was collected on vessels transiting from the Atlantic to the Pacific and $11,432,815.57 on vessels passing from the Pacific to the Atlantic. In the calendar year 1922, tolls on Atlantic to Pacific vessels aggregated $6,859,866.61 and tolls on Pacific to Atlantic, $5,713,541.16.

Soya Beans from Vladivostok.

On December 20, 1923, the Danish motor ship *Peru*, owned and operated by the East Asiatic Co., transited the Canal, northbound, carrying as about half of her cargo 4,500 tons of soya beans from Vladivostok to Copenhagen. Other principal items of her cargo of 9,167 tons were 1,035 tons of barley and 1,025 tons of canned and dried fruits from California, 297 tons of coffee from Central American ports, and 2,000 tons of wheat from Canada, all destined to North European ports.

Panama Canal Tolls.

The graph below, with the accompanying figures, shows the tolls collected on commercial traffic through the Panama Canal for the calendar years 1914 to 1923, inclusive:



[1] Covers period of 4½ months only; Canal opened to traffic August 15, 1914.
[2] Covers approximately 8½ months only; Canal closed by slides from the middle of September, 1915, to the middle of April, 1916.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending December 29, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Anyo Maru	Toyo Kisen Kaisha	December 23..	December 24..	738	.....
Santa Maria	Union Oil Co. of California	December 23..	December 24..	10,500	.....
Acajutla	Pacific Steam Navigation Co	December 24..	December 24..	.....	21
Gold Star	U. S. Government	December 24..	December 29..	21	.....
Cambrai	U. S. Government	December 24..	.....	75	.....
Garfield	Grace Line	December 26..	December 26..	.....	43

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 29, 1923.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Agwibay [1]	22	15.25	23	6.30	23	13.18	23	14.32	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	20.0	Baltimore	San Pedro	Ballast		9,776	6,903
Westwego [1]	22	21.20	23	6.18	23	14.16	23	15.40	American	Union Petroleum Steamship Co.	387.0	52.0	22.0	London	San Francisco	Ballast		5,387	3,789
Tiberton	23	0.15	23	7.37	23	15.01	23	16.06	British	R. Chapman & Son	400.0	52.4	17.0	Cardiff	Vancouver	Ballast		5,699	4,126
James B. Duke	23	5.40	23	7.47	23	15.48	23	16.35	American	Garland Steamship Corp	385.0	51.2	18.6	Baltimore	Hongkong	General	4,400	5,242	4,471
Tonjer	23	6.10	23	8.30	23	16.51	23	17.55	Norwegian	H. M. Wrangel & Co	334.2	48.0	13.6	Norfolk	San Pedro	Ballast		3,955	2,719
Baron Lovat	23	6.40	23	8.30	23	16.42	23	17.55	British	Hogarth Shipping Co	470.5	61.0	15.6	Barbados	Grays Harbor	Ballast		8,618	6,160
August	23	7.39	23	9.48	23	17.26	23	18.25	Norwegian	Jacob Christensen	410.0	54.0	15.6	New Orleans	Port Townsend	Ballast		6,249	4,755
Cathwood [1]	23	9.23	23	10.05	23	17.35	23	21.50	American	Union Oil Co	435.0	56.0	21.8	Baltimore	Los Angeles	Ballast		7,482	5,143
Egremont Castle	23	5.55	23	11.37	23	19.14	23	20.25	British	Lancashire Shipping Co	410.0	52.0	27.3	New York	Haiphong	General	7,194	6,049	4,422
Hanley	23	12.08	23	12.30	23	19.28	24	2.42	American	United American Line	440.0	56.0	18.0	New York	Seattle	General	1,886	8,301	5,995
W. F. Burdell [3]	23	12.10	23	12.55	23	19.55	23	20.52	American	Pure Oil Co	435.0	56.0	20.0	Philadelphia	San Pedro	Ballast		7,434	5,093
Gold Star [2]	22	15.05	24	6.15	24	13.46	.....	.....	American	U. S. Navy	391.0	52.0	22.3	Hampton R'ds	San Diego	General	3,596	.....	.....
Acajutla	17	14.05	24	7.09	24	14.34	24	18.30	British	Pacific Steam Navigation Co	215.7	33.5	15.7	Cristobal	Champerico	General	645	1,273	706
Isis [3]	23	14.30	24	7.22	24	15.37	24	16.45	German	Kosmos Line	382.9	51.6	23.0	Hamburg	Seattle	General	6,103	5,788	4,027
King Idwal	23	15.12	24	8.15	24	16.32	24	17.30	British	Dodd Thompson & Co	400.2	52.3	15.6	Cardiff	San Pedro	Ballast		6,031	4,357
Corvus	24	2.10	24	9.33	24	17.42	24	22.00	American	Planet Steamship Co	410.0	54.0	24.0	Baltimore	Seattle	General, steel	7,595	6,604	4,655
Atlanterhavet	24	2.25	24	10.32	24	18.14	25	12.40	Danish	Danish Steamship Co	367.0	51.0	12.0	Genoa	Vancouver	Ballast		5,814	4,490
Utacarbon [1]	24	5.20	24	10.53	24	18.37	24	19.53	American	Union Oil Co	435.0	56.0	18.0	New York	San Pedro	Ballast		7,482	5,209
F. J. Luckenbach	24	9.13	25	6.14	25	14.17	25	15.28	American	Luckenbach Line	446.0	56.0	29.8	Galveston	Seattle	General	9,100	8,508	6,179
Mabriton	24	14.18	25	6.27	25	14.58	25	15.58	British	R. Chapman & Son	412.6	55.5	16.0	Newcastle	Vancouver	Ballast		6,823	4,797
Chuky [1]	24	18.10	25	7.05	25	15.50	25	20.22	British	Sheridan Steamship Co	440.8	56.0	26.6	Tampico	Tocopilla	Crude oil	9,591	7,691	4,723
Miskianza [1]	24	21.05	25	7.15	25	16.33	28	14.07	American	Walker & Daly (S. B.)	425.0	57.2	21.0	New York	Los Angeles	Ballast		7,205	4,897
Sagadahoc	25	10.18	25	10.35	25	17.20	26	2.09	American	Sagadahoc Steamship Co	420.5	54.2	27.0	Baltimore	Seattle	General	9,000	7,340	5,342
Port Sydney	25	16.42	26	6.00	26	14.21	26	15.25	British	Commonwealth & Dom. Line	501.0	63.0	27.6	London	Auckland	General	10,982	11,857	8,947
J. M. Danziger [1]	25	17.15	26	6.27	26	14.33	26	15.30	American	Pan-American Petroleum Co	430.0	58.2	20.10	Boston	San Pedro	Ballast		6,963	4,886
Steel Worker	25	17.37	26	7.28	26	15.22	26	16.30	American	U. S. Steel Products Co	424.2	56.2	25.0	Philadelphia	Manila	General	7,956	7,611	5,497
Grande Gaard	25	21.50	26	7.35	26	16.10	26	20.22	Norwegian	Westfal, Larsen & Co	420.0	54.0	26.0	New York	Yokohama	General	8,800	6,963	5,051
J. H. Plummer	23	21.06	26	8.50	26	20.12	28	3.50	British	Kirkwood Steamship Co	246.4	36.6	16.0	Montreal	Vancouver	General	1,226	1,738	1,133
Salacia	26	2.05	26	8.47	26	16.16	26	17.54	British	Donaldson Brothers	423.0	52.6	18.6	Hull	Vancouver	Ballast		6,180	4,476
Moena	26	7.00	26	9.05	26	16.59	26	17.59	Dutch	Netherlands Steamship Co	480.0	60.0	17.0	Amsterdam	Portland	Ballast		9,609	6,512
Hampton Roads [1]	26	9.10	26	10.00	26	18.46	27	12.05	American	McAllister Brothers (S. B.)	431.0	59.0	22.0	Boston	San Pedro	Ballast		8,093	5,541
Lillian Luckenbach	26	8.32	26	10.52	26	18.01	26	19.00	American	Luckenbach Line	449.0	60.0	24.0	New York	Los Angeles	General	6,200	9,294	6,865
Garfield	25	2.35	26	11.00	26	19.34	27	0.04	American	Grace Line	299.4	45.0	18.6	New York	Pacasmayo	General	1,745	3,256	2,010
Kabinga	26	6.55	26	11.30	26	20.35	26	21.40	British	Ellerman & Bucknall Line	412.0	52.0	25.2	Galveston	Kobe	Rails, cotton	67,02	6,048	4,514

[1] Tanker. [2] Transport. [3] Motor ship.

Westmoreland	26	5.10	26	12.05	16	20.48	26	21.45	British	Federal Steam Navigation Co	474.0	60.0	29.6	Liverpool	Auckland	General	7,974	10,385	7,505
Nordvaag	26	10.22	26	12.35	26	21.28	27	11.20	Norwegian	Gorrissen & Co	340.0	40.1	19.0	New York	Antofagasta	Scrap iron	3,010	2,781	1,813
Misty Law	26	11.15	26	13.17	26	21.36	26	22.51	British	Thomas Law & Co	400.0	53.5	14.0	New York	Grays Harbor	Ballast	.....	5,746	4,128
William G. Warden [1]	25	2.50	27	6.00	27	13.51	27	14.53	American	Standard Oil Co	500.0	68.2	29.0	Baltimore	Los Angeles	Ballast	.....	10,524	7,600
Maryland	26	11.52	27	6.30	27	14.14	27	15.12	French	Cie Generale Transatlantique	378.0	52.8	19.9	Antwerp	Vancouver	General	3,389	6,234	4,639
China Maru	26	14.20	27	7.19	27	14.51	27	15.50	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	16.0	Baltimore	Vancouver	Ballast	.....	5,924	4,395
Denderah	26	16.53	27	7.32	27	15.09	27	17.50	German	Kosmos Line	360.0	51.0	17.0	Hamburg	Salina Cruz	General	1,125	4,924	3,524
Willfaro	26	19.40	27	8.19	27	16.56	27	21.08	American	Williams Steamship Line	386.8	52.2	18.0	Norfolk	San Pedro	General	3,700	5,684	4,113
Eastern Sea	26	21.40	27	8.45	27	17.05	27	19.50	American	U. S. & A. Line (S. B.)	384.0	51.1	22.0	New York	Port Adelaide	General	4,083	5,934	4,415
Hororata	27	0.40	27	10.00	27	17.45	27	19.08	British	New Zealand Shipping Co	510.0	64.0	28.0	Cardiff	Brisbane	General	5,307	12,263	8,763
Gargoyle [1]	27	2.40	27	10.05	27	18.08	27	19.30	American	Vacuum Oil Co	425.0	57.2	21.0	Paulsboro	San Francisco	Lubricating oil	2,000	7,510	4,989
Steel Seafarer	27	7.45	27	11.10	27	18.43	27	19.50	American	U. S. Steel Products Co	424.0	56.2	26.8	Boston	Seattle	General, steel	8,085	7,611	5,454
Illingworth	27	8.42	27	11.19	27	19.24	27	20.40	British	R. L. Dalgliesh	430.0	55.9	17.0	Shields	Eureka	Ballast	.....	6,987	4,933
Finland	27	9.53	27	12.15	27	19.35	28	2.30	American	International Mer. Marine	560.0	60.2	24.0	New York	San Francisco	(6)	1,380	13,558	9,016
Ansaldo San Giorgio III	25	10.05	27	12.05	27	20.19	28	3.16	Italian	Societa Nazionale di Navigazione	385.7	51.7	17.3	Genoa	Valparaiso	General	1,385	5,759	4,013
Arno Mendi	27	12.13	27	13.15	27	21.00	27	22.27	Spanish	Sota & Aznar	400.0	53.0	16.0	Norfolk	Vancouver	Ballast	.....	6,044	4,235
Bellerophon	27	11.40	28	6.20	28	14.05	28	15.08	British	Alfred Holt & Co	485.0	52.0	31.0	New York	Otaru	General	10,000	9,344	6,540
Callandia	27	14.35	28	6.25	28	15.10	28	16.13	British	Henry Thompson	400.4	52.1	20.0	Las Palmas	Vancouver	Ballast	.....	6,517	4,777
Mexico [4]	26	14.55	28	7.20	28	16.05	29	16.53	British	S. Pearson & Sons	250.0	41.0	12.6	Cristobal	Callao	Ballast	.....	1,695	247
W. E. Hutton [1]	27	19.25	28	7.27	28	15.21	28	16.25	American	Pure Oil Co	435.0	56.0	22.0	Philadelphia	Los Angeles	Ballast	.....	7,482	5,209
Eagle	27	20.50	28	8.15	28	15.47	28	21.27	American	Standard Transportation Co	410.0	56.0	17.0	Baltimore	Seattle	General	1,628	8,243	6,266
Emidio [1]	27	23.25	28	9.38	28	16.53	28	19.35	American	General Petroleum Co	435.0	56.2	22.0	Thameshaven	San Pedro	Ballast	.....	7,437	5,058
Oliva [1]	28	7.00	28	10.52	28	17.20	28	21.38	British	Anglo-Saxon Petroleum Co	412.0	53.0	17.6	London	San Pedro	Ballast	.....	6,110	4,489
Arizonan	28	10.35	28	11.00	28	17.52	28	18.58	American	American-Hawaiian Line	470.1	57.2	19.0	Boston	San Francisco	General	3,181	9,141	6,684
Homer City	28	12.28	28	13.05	28	19.51	28	21.23	British	W. R. Smith & Co	385.0	53.0	16.0	Liverpool	San Francisco	Ballast	.....	5,517	3,953
President Leguia	24	18.45	29	6.39	29	14.23	29	15.55	Peruvian	Peruvian Line	315.0	49.8	20.6	Iquitos	Callao	General, lumber	3,200	3,651	2,787
Willaston	28	7.43	29	6.25	29	15.15	30	1.19	British	John Edgar & Co	400.0	52.0	26.0	Sabine	Melbourne	Sulphur	7,800	5,701	4,126
Kilnsea	28	21.10	29	7.40	29	14.59	29	15.55	British	Wm. Brown Atkinson & Co	375.0	51.2	14.9	Hull	San Francisco	Ballast	.....	5,390	3,873
Delaware Sun [1]	28	22.43	29	8.41	29	16.31	29	17.40	American	Sun Oil Co	480.5	66.0	23.0	Chester	San Pedro	Ballast	.....	9,402	6,586
Katherine Donovan	29	6.40	29	10.50	29	18.15	29	18.26	American	Donovan Lumber Co	199.0	41.6	18.6	New Orleans	San Pedro	General, pig iron	567	1,131	711
Coco Solo [5]	.....	.....	29	.....	29	16.30	...	...	French	F. Piper	.....	.....	.....	Cristobal	Balboa	Ballast	.....	1	1
Argalia	29	12.45	29	13.30	29	20.19	29	21.54	British	Donaldson Line	400.0	52.0	16.0	Hull	Grays Harbor	Ballast	.....	.....	.....

[1] Tanker. [4] Dredge. [5] Launch. [6] Automobiles, machinery, general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Taketoyo Maru	22	21.50	23	6.56	23	14.10	23	14.10	Japanese	Nippon Yusen Kaisha	445.0	58.0	18.6	Manila	Boston	General	3,059	7,972	5,687
Georgian	23	0.05	23	7.42	23	16.13	23	16.13	American	American-Hawaiian Line	386.8	52.2	18.0	Portland	Philadelphia	Lumber, general	3,696	5,719	4,023
Cedar Branch	23	6.00	23	8.13	23	16.55	23	17.48	British	F. & W. Ritson	390.5	51.0	22.0	Valparaiso	Liverpool	(7)	5,420	4,927	3,597
San Zeferino [1]	23	7.00	23	8.48	23	17.27	23	17.27	British	Eagle Oil Transport Co	420.1	54.6	25.3	San Pedro	Tampico	Crude oil	8,500	6,636	4,408
Lewis Luckenbach	23	11.20	23	12.06	23	20.05	23	20.05	American	Luckenbach Line	496.0	68.2	26.6	Portland	Boston	Lumber, general	8,600	11,487	8,762
Tuxpanoil [1]	23	11.30	23	12.17	23	21.40	24	0.30	American	McAllister Brothers (S. B.)	431.0	59.2	26.0	San Pedro	New York	Crude oil	9,500	7,862	5,048
William Perkins	23	12.07	23	13.49	23	22.11	24	1.15	American	Garland Steamship Corporation	409.6	54.2	25.6	Seattle	New York	Lumber, copper	6,000	6,757	4,919

[1] Tanker. [7] Nitrate, sugar, metal, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Miller County [1]	23	23.30	24	6.45	24	14.42	24	14.42	American	Sun Oil Co	431.0	59.2	27.3	San Pedro	Chester	Crude petroleum	10,523	7,780	5,220
Lehigh	24	1.50	24	7.14	24	15.15	24	15.15	American	N. At. & Western Co	390.0	54.2	23.6	Portland, Oreg	Portland, Me.	Lumber, general	5,675	6,142	4,276
Santa Elisa	24	6.15	24	8.19	24	16.00	24	21.05	American	Grace Line	360.3	51.7	24.2	Antofagasta	New York	General	4,203	5,957	4,325
W. M. Graham and L-53	...	...	24	8.19	24	15.19	...	...	American	U. S. Navy	156.0	32.0	.....	Balboa	Cristobal				
Jacques Cartier	24	6.00	24	9.24	24	17.00	24	17.45	French	French Line	472.1	59.7	28.10	Tacoma	Havre	General	10,834	10,068	7,083
F. H. Hillman [1]	24	6.44	24	9.47	24	17.35	24	17.35	American	Standard Oil Co	500.0	68.2	28.0	San Pedro	Providence	Gasoline	13,900	11,225	7,913
S. M. Spalding [1]	24	7.45	24	10.13	24	18.30	24	18.30	American	Pan-American Pet. & Transp. Co	435.0	56.0	27.3	San Pedro	New Orleans	Crude oil	10,423	7,331	5,111
Swift Eagle [1]	24	8.30	24	10.37	24	19.18	24	19.18	American	C. D. Mallory & Co	464.6	60.2	25.4	San Pedro	Fall River	Crude oil	12,000	8,473	5,997
Trekieve	24	12.05	24	12.57	24	21.00	25	7.05	British	Edward Hain & Son, Ltd	400.0	54.4	16.6	Pagonmene	New York	General	4,119	5,766	4,083
Losada [8]	24	6.50	24	14.14	24	22.45	25	3.05	British	Pacific Steam Navigation Co	406.1	54.2	25.3	Corral	London	General	7,502	7,221	4,844
Charlton Hall	23	15.00	25	6.35	25	14.35	25	16.05	American	Isthmian Steamship Line	400.0	50.0	23.9	Seattle	London	([11])	6,360	5,714	4,161
San Gaspar [1]	24	14.15	25	6.52	25	15.25	25	15.25	British	Eagle Oil Transport Co	530.2	68.5	20.0	San Pedro	Tuxpam	Crude oil	16,496	13,422	9,350
Agwimex	24	15.35	25	7.27	25	18.00	25	18.00	American	Ward Line	480.5	66.0	.....	San Pedro	Baltimore	Crude oil	13,000	9,394	6,306
Aden Maru	24	4.55	25	7.57	25	16.35	25	16.35	Japanese	Kabushiki Kisen Kaisha	385.0	51.0	25.4	Vancouver	Fayal [10]	Wheat	7,500	6,203	4,672
Algonquin [1]	24	18.10	25	8.26	25	16.53	25	16.53	American	Standard Transportation Co	435.0	56.0	26.0	San Pedro	Providence	Crude oil	9,470	7,602	5,337
Cambrai [9]	24	20.30	25	8.50	25	17.30	25	17.30	American	U. S. Army	448.0	58.0	25.4	San Francisco	New York	Army stores	558	.....	.....
Steel Ranger	25	4.42	25	9.05	25	18.38	25	18.38	American	Isthmian Steamship Lines	424.2	56.2	25.0	Vancouver	Providence	Lumber, general	7,290	7,611	5,450
Mineola	25	5.00	25	9.32	25	19.27	26	17.00	American	Grace Line	298.6	40.0	20.8	Huacho	New York	General	2,730	2,835	1,805
Mount Clinton	25	6.08	25	9.59	25	20.00	25	20.00	American	United American Lines	440.3	57.2	22.6	Portland	Baltimore	Lumber, general	5,924	8,141	5,398
J. A. Moffett, Jr [1]	25	8.55	25	10.45	25	22.35	25	22.35	American	Standard Oil Co. of N. J.	499.2	68.1	29.0	San Pedro	New York	Crude oil	15,861	11,037	7,995
Tydeus	25	9.45	25	11.04	25	22.10	26	0.15	British	Alfred Holt & Co	452.1	54.5	25.6	San Francisco	London	General	7,630	7,578	5,517
El Monticello	25	13.15	25	13.52	25	23.40	26	13.55	Spanish	Cia. General de Navigazion	330.0	49.0	21.0	Antofagasta	Cartagena	Nitrate	5,012	3,464	2,310
Pennsylvanian	25	14.42	26	6.21	26	16.05	26	16.05	American	American-Hawaiian Line	407.7	53.7	19.0	Seattle	Boston	General	3,105	7,107	4,916
Pearl Shell [1]	25	15.00	26	6.38	26	17.45	26	17.45	American	Pearl Shell Steamship Co	411.6	43.4	25.6	San Francisco	Lands End	Gasoline (bulk)	7,651	6,177	4,403
Manchuria	26	2.35	26	7.23	26	17.40	26	20.04	American	Panama-Pacific Line	600.0	65.3	27.3	San Francisco	New York	General	2,123	17,044	11,488
Sutermeo	25	14.58	26	7.53	26	18.54	26	18.54	American	Transmarine Corporation	324.0	46.2	23.2	Seattle	Port Newark	Lumber, general	3,500	3,984	2,612
Hague Maru	25	17.30	26	8.10	26	19.05	26	20.25	Japanese	Osaka Shosen Kaisha	407.2	15.8	18.0	Keelung	New York	General	4,524	6,533	4,771
Herakles	25	16.45	26	9.02	26	19.35	26	20.45	Norwegian	Bruusgaard Co	389.8	51.1	23.6	Iquique	Charleston	Nitrates	8,200	5,680	4,220
Dillwyn [1]	26	7.42	26	9.14	26	20.11	26	20.11	American	C. D. Mallory & Co	435.0	56.0	57.1	San Pedro	New York	Crude oil	8,000	7,441	5,180
H. H. Rogers [1]	26	12.45	26	13.26	26	22.20	26	22.20	American	Standard Oil Co. of N. J.	500.0	68.0	29.0	San Pedro	New York	Crude oil	15,700	10,333	7,475
Buenos Aires	26	16.30	27	6.27	27	17.00	29	6.06	Spanish	Cia Trasatlantica	407.0	47.9	25.0	Valparaiso	Barcelona	General	222	5,624	3,844
Glentworth	26	16.50	27	6.44	27	18.20	27	23.05	British	Dalgliesh Shipping Co	463.6	55.0	25.6	Iquique	Wilmington	Nitrate	8,500	7,999	5,867
Datchet	26	18.05	27	7.22	27	20.30	27	21.40	British	Watts, Watts & Co	323.0	47.0	21.0	Antofagasta	Baltimore	Nitrate of soda	4,852	3,418	2,442
Livingston Roe [1]	27	1.14	27	7.31	27	18.07	27	18.07	American	Standard Oil Co. of N. J.	462.4	60.2	28.0	San Pedro	New York	Crude oil	12,000	8,491	6,065
Nile	27	3.30	27	8.00	27	18.30	27	21.05	British	Glen & Co	423.5	56.1	26.0	Tocopilla	Charleston	Nitrate	8,950	6,319	4,552
Newport	27	6.37	27	9.05	27	19.43	...	.....	American	Pacific Mail Steamship Co	326.0	38.2	16.0	San Francisco	Cristobal	([12])	844	3,173	2,163
Charles Pratt [1]	27	8.30	27	10.37	27	19.53	27	19.53	American	Standard Oil Co. of N. J.	500.0	63.0	29.0	San Pedro	New York	Crude oil	15,620	10,313	7,492

[1] Tanker. [8] Motor ship. [9] Transport. [10] For orders. [11] Barley, wheat, lumber, and canned goods. [12] Coffee, logs, hides, skins, and general.

Katrina Luckenbach	27	13.25	27	14.09	27	21.20	27	21.20	American	Luckenbach Line	446.0	56.1	25.0	Seattle	Mobile	General	5,634	8,508	6,179
Walter Jennings [1]	27	13.40	28	6.22	28	15.05	28	15.05	American	Standard Oil Co. of N. J.	499.2	68.0	30.6	San Pedro	New York	Crude oil	15,000	11,037	7,995
Toco [1]	27	15.00	28	6.48	28	16.13	28	17.55	British	Chile Steamship Co., Inc.	440.0	56.0	19.0	Tocopilla	Tampico	Ballast		7,693	4,831
San Gerardo [1]	27	19.45	28	7.22	28	17.20	28	17.20	British	Eagle Oil Transport Co.	530.2	68.5	30.6	San Pedro	Tampico	Crude oil	16,760	13,427	9,342
Oakfield	27	20.55	28	7.50	28	18.10	28	19.25	British	Anglo-Celtic Shipping Co.	360.0	51.7	21.6	Valparaiso	Gibraltar [13]	Nitrate	6,123	4,598	3,457
W. S. Rheem [1]	28	2.00	28	8.35	28	18.25	28	18.25	American	Standard Oil Co. of California	500.0	68.2	29.6	Los Angeles	New York	Crude oil	15,000	11,224	7,895
Nebraskan	27	19.50	28	9.02	28	18.45	28	20.15	British	Royal Mail Steam Packet Co.	450.2	58.3	24.0	Seattle	London	Fruit, general	5,370	8,878	6,588
General O. H. Ernst	27	23.15	28	9.50	28	19.45	29	17.10	American	Panama Railroad Steamship Line	356.4	45.3	21.5	Esmeraldes	New York	General	2,546	4,503	2,764
Cederic	28	15.40	29	6.23	29	14.27	29	15.30	Norwegian	Det. Selmerske Rederi	338.5	48.0	23.6	San Antonio	New York	Copper ore	5,691	4,113	3,071
Pacific	28	16.30	29	6.47	29	14.50	29	14.50	American	Argonaut Steamship Co.	399.7	56.2	26.6	Vancouver	New York	Lumber, copper	6,547	6,479	4,709
John D. Archibald [1]	28	22.35	29	7.29	29	16.22	29	17.18	American	Standard Oil Co. of N. J.	554.9	75.3	30.6	San Pedro	New York	Crude oil	19,250	14,785	10,313
Ucayali	29	10.30	29	12.33	29	19.30	....	.....	Peruvian	Peruvian Line	374.7	46.3	21.6	Callao	Cristobal	General	2,238	4,466	2,405

[1] Tanker. [13] For orders. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 23.	Pastores	United Fruit Co.	Port Limon.	December 23	Pastores	United Fruit Co.	New York via Habana.
December 23.	Zacapa	United Fruit Co.	New Orleans via Habana.	December 23	Zacapa	United Fruit Co.	Bocas del Toro.
December 25.	San Benito	United Fruit Co.	Boston via Habana.	December 26	Zacapa	United Fruit Co.	New Orleans.
December 25.	Ulua	United Fruit Co.	New York via Habana.	December 26	Oranje Nassau	Royal Netherlands W. I. Mail.	Port Limon.
December 25.	Zacapa	United Fruit Co.	Bocas del Toro.	December 26	San Benito	United Fruit Co.	Boston via Port Limon.
December 25.	Oranje Nassau	Royal Netherlands W. I. Mail.	Amsterdam via wayports.	December 26	Ulua	United Fruit Co.	Port Limon.
December 26.	Saramacca	United Fruit Co.	New Orleans via Habana.	December 27	Sixaola	United Fruit Co.	New York via Kingston.
December 26.	Carrillo	United Fruit Co.	New York via Kingston.	December 27	Saramaeca	United Fruit Co.	New York via wayports.
December 27.	Sixaola	United Fruit Co.	Colombian ports.	December 27	Carrillo	United Fruit Co.	Colombian ports.
December 29.	Oranje Nassau	Royal Netherlands W. I. Mail.	Port Limon.	.....	.....	.....	.....

PORT OF BALBOA.

December 23.	Anyo Maru	Toyo Kisen Kaisha	Hongkong.	December 24	Anyo Maru	Toyo Kisen Kaisha	Valparaiso.
December 23.	Santa Maria [1]	Union Oil Co.	Port San Luis.	December 24	Santa Maria [1]	Union Oil Co.	Port San Luis.
.....	.....	.....	.....	December 25	Guardian	All America Cable Co.	High seas.

[1] Tanker. * Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending December 29, 1923.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Zacapa	United Fruit Co	December 23.	December 23.	265	285
Pastores	United Fruit Co	December 23.	December 23.	15	108
Acajutla	Pacific Steam Navigation Co	.....	December 24.	.....	647
Losada	Pacific Steam Navigation Co	December 24.	December 25.	52	109
F. J. Luckenbach	Luckenbach Line	December 24.	December 25.	350	(3)
Zacapa	United Fruit Co	December 25.	December 26.	3	(3)
Wm. G. Warden	Standard Oil Co. of N. J.	December 25.	December 27.	15,123	(3)
Garfield	Grace Line	December 25.	December 26.	76	105
Mineola	Grace Line	December 25.	December 25.	124	(3)
Oranje Nassau	Royal Netherlands W. I. Mail	December 25.	December 26.	258	(3)
Ansaldo San Giorgio III	Societa Nazionale di Navigazione	December 25.	December 27.	46	(3)
San Benito	United Fruit Co	December 25.	December 26.	3	26
Ulua	United Fruit Co	December 25.	December 26.	170	41
Denderah	Kosmos Line	December 26.	December 27.	109	(3)
Maryland	French Line	December 26.	December 27.	18	68
Saramacca	United Fruit Co	December 26.	December 27.	709	(3)
Carrillo	United Fruit Co	December 26.	December 27.	162	447
Newport	Pacific Mail Steamship Co	December 27.	.....	844	.....
Sixaola	United Fruit Co	December 27.	December 27.	(1)	21
Buenos Aires	Spanish Line	December 27.	December 29.	408	285
Gen. O. H. Ernst	Panama Railroad Steamship Line	December 28.	December 29.	611	405
Santa Malta	Pacific Mail Steamship Line	December 29.	.....	353	.....
Ucayali	Peruvian Line	December 29.	.....	2,245	.....
Oranje Nassau	Royal Netherlands W. I. Mail	December 29.	December 29.	(2)	735

[1] 2 packages. [2] No cargo discharged. [3] No cargo laded.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective January 3, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.575
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., January 9, 1924. No. 22.

Tanker Traffic Through Panama Canal December, 1923.

The number of tankships transiting the Canal during the month of December, 1923, was 164. This is 19 more than during November and 10 more than during October, 1923. Tankers comprised about 32.4 per cent of the total commercial transits of the Canal in December, about 36 per cent of the Panama Canal net tonnage and carried about 39 per cent of the total cargo through the Canal.

The following table shows the number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during December, 1923, segregated by nationality of vessels and direction of transit:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	8	44,162	$40,940.70	48,607
United States	75	441,963	323,139.32	11,500
Totals, December, 1923	83	486,125	364,080.02	60,107
Totals, November, 1923	62	352,216	262,248.94	38,826
Totals, October, 1923	83	500,686	373,769.67	67,738
Pacific to Atlantic.				
British	9	50,388	51,577.63	80,927
Dutch	1	4,395	4,392.50	7,151
Norwegian	1	5,520	6,546.25	8,712
United States	70	427,799	439,231.60	818,167
Totals, December, 1923	81	488,102	501,747.98	914,957
Totals, November, 1923	83	496,236	514,846.52	908,993
Totals, October, 1923	71	424,846	438,672.42	803,194

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

Destination.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles:				
December, 1923	71	423,948	$305,939.73	.....
November, 1923	55	322,453	234,590.95	8,329
October, 1923	71	438,156	316,678.35	.....
From Los Angeles:				
December, 1923	74	454,752	467,752.55	872,656
November, 1923	75	457,676	479,966.05	870,855
October, 1923	67	407,398	421,704.10	780,082

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 5, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Malta	29	10.10	30	6.10	30	13.54	30	14.50	American	Atlantic & Pacific Steamship Co.	404.5	53.7	21.10	Baltimore	San Francisco	General	3,845	6,766	4,809
Cerro Ebano [1]	29	19.35	30	6.30	30	14.40	30	15.40	American	Pan-American Petroleum Co.	480.5	66.0	21.0	Providence	San Pedro	Ballast		9,398	6,453
Deroche [1]	29	20.30	30	7.30	30	15.42	30	20.00	American	Union Oil Co.	435.0	56.0	22.0	New York	Los Angeles	Ballast		7,452	5,199
G. Harrison Smith [1]	30	5.33	30	7.22	30	16.30	30	17.30	British	International Petroleum Co.	550.0	72.6	25.0	New York	San Pedro	Ballast		15,476	10,751
San Francisco Maru	30	6.14	30	8.30	30	17.57	31	15.29	Japanese	Kabushiki Kisen Kawasaki Line.	385.0	51.0	14.0	New York	Vancouver	Ballast		6,245	4,704
Robert E. Hopkins [1]	30	8.38	30	8.45	30	17.11	30	18.10	American	Tidewater Oil Co.	424.4	58.2	21.0	New York	Los Angeles	Ballast		7,333	5,244
Pacific Maru	30	9.45	30	10.00	30	17.21	30	22.24	Japanese	Kawasaki Dockyard Co.	385.0	51.0	15.0	New York	Sydney	General	2,245	6,251	4,736
Golden Gate	30	14.58	31	6.26	31	15.02	3	13.59	American	Golden Gate Navigation Co.	318.0	41.3	24.4	New York	San Francisco	General	4,000	3,165	2,108
Norlina	30	20.30	31	6.33	31	13.57	31	14.49	American	Garland Steamship Line	385.0	51.1	18.8	New York	Los Angeles	General	4,002	5,466	4,181
Mevania	31	0.15	31	7.23	31	15.51	31	19.55	American	Malston Co.	425.8	57.0	18.0	New York	San Pedro	Ballast		7,485	5,216
Tulsagas [1]	31	4.45	31	8.27	31	16.19	31	17.21	American	McAllister Brothers (S. B.)	431.0	59.2	18.6	Fall River	San Pedro	Ballast		7,817	5,049
Gibraltar	31	6.20	31	10.02	31	18.05	31	19.18	British	Glasgow Shipowners Co., Ltd.	365.0	51.0	23.0	New York	San Antonio	Coke, general	4,700	4,770	3,468
Irmi	29	17.23	31	11.00	31	18.54	2	14.13	German	Rengedanz	340.5	47.2	23.2	Glasgow	San Francisco	General	5,000	4,363	3,142
Solana [1]	31	13.30	31	13.40	31	20.26	1	4.00	American	Pacific Mail Steamship Co.	419.5	56.5	18.0	Fall River	San Pedro	Ballast		7,060	5,025
Sailor [2]	29	.....	31	.....	31	13.28	.....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Ballast		2	2
Alaskan	31	15.36	1	6.25	1	13.40	1	14.43	American	American-Hawaiian Line	471.0	57.0	23.6	Philadelphia	Portland	General	6,900	9,250	6,816
Jamaica	30	16.00	1	7.15	1	14.05	1	15.14	British	Pacific Steam Navigation Co.	220.0	34.0	11.0	Cristobal	Buenaventura	Ballast		1,187	622
Halo [1]	31	19.20	1	7.38	1	14.40	1	17.46	American	Cities Service Transportation.	435.0	56.0	20.0	Boston	San Pedro	Ballast		7,434	5,093
H. M. Flagler [1]	31	23.40	1	7.38	1	15.00	1	16.16	American	Standard Oil Co.	461.6	60.0	21.0	New York	San Pedro	Ballast		8,450	6,089
Centaurus	1	6.34	1	8.22	1	16.25	2	2.45	American	Planet Steamship Corp.	409.8	54.2	24.0	Baltimore	San Francisco	General, steel	7,690	6,581	4,795
Tjikandi	1	8.10	1	9.28	1	16.46	1	22.28	Dutch	Java China Japan Line	448.7	57.9	18.6	Rotterdam	Portland	Ballast		8,562	5,797
Betterton [1]	1	8.20	1	11.18	1	19.34	1	21.10	American	Walker & Daly (S. B.)	431.0	59.2	16.6	Baltimore	San Pedro	Ballast		7,822	5,180
William Green [1]	1	12.35	1	13.00	1	19.40	1	21.10	American	Pan-American Petroleum Co.	430.0	58.1	20.0	New York	San Pedro	Ballast		7,822	5,180
Teno	1	10.55	2	6.05	2	13.49	2	14.50	Chilean	Chilean Line	421.8	56.0	24.7	New York	Valparaiso	General	1,489	7,758	4,672
Edward L. Doheny, Jr.	1	20.36	2	7.02	2	14.31	2	15.24	American	Pan-American Petroleum Co.	467.6	62.7	20.0	New York	San Pedro	Ballast		9,655	7,166
Imlay [1]	1	23.55	2	8.20	2	15.46	2	17.46	American	Malston Co.	425.1	57.0	14.0	Baton Rouge	San Pedro	Ballast		7,218	4,959
Margaret Coughlan	2	0.30	2	9.19	2	16.59	2	23.20	British	Atlantic Steamship Co.	411.5	54.1	24.0	Montreal	Vancouver	Steel, general	7,700	6,624	4,999
Sujerseyco	2	8.40	2	10.25	2	17.47	2	18.35	American	Transmarine Corporation	324.0	46.2	23.8	Newark	Seattle	General	4,627	3,984	2,612
Lochkatrine [3]	1	5.55	2	13.10	2	19.53	3	2.40	British	Royal Mail Steam Packet Co.	465.4	62.3	19.0	Antwerp	Vancouver	General	3,796	10,802	7,595
Sciota [4]	.....	.....	2	14.25	2	19.54	.....	.....	American	U. S. Navy	155.0	30.0	.....	Cristobal	Balboa	Ballast		.....	.....
Chagres [2]	.....	.....	2	.....	2	9.18	.....	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Ballast		2	2
Santa Ana	2	20.20	3	6.25	3	14.15	3	15.29	American	Grace Line	360.2	51.6	23.3	New York	Talcahuano	General	2,040	5,776	4,081
Pilar de Larrinaga	2	16.02	3	6.28	3	15.01	3	16.00	British	Larrinaga Co.	445.0	58.0	17.0	Algiers	Vancouver	Ballast		7,643	5,562

[1] Tanker. [2] Launch. [3] Motor ship. [4] Tug.

Ramon de Larrinaga	2	21.58	3	7.25	3	15.38	3	16.35	British	Larrinaga Co	449.0	57.0	18.6	Oran	Vancouver	Ballast		7,712	5,600	
Rhine Maru	2	23.15	3	7.33	3	16.43	3	21.55	Japanese	Kawasaki Dockyard Co	405.0	53.0	17.0	Wilmington	Vancouver	Ballast		7,044	5,136	
Robert Luckenbach	2	23.25	3	8.49	3	17.29	3	18.23	American	Luckenbach Line	445.0	58.0	22.0	New York	Los Angeles	General	7,000	8,695	6,375	
Atlas Maru	3	0.30	3	8.55	3	17.13	3	21.20	Japanese	Osaka Shosen Kaisha	420.0	56.0	26.0	New York	Yokohama	(8)	7,971	7,791	5,587	
Southwestern Miller	3	10.27	3	10.45	3	18.12	4	7.41	British	Norfolk & North Amer. S. S. Co.	420.0	53.0	27.4	New York	Shanghai	General	7,461	7,138	5,122	
General G. W. Goethals	1	15.03	3	11.53	3	18.33	4	5.37	American	Panama Railroad Steamship Line	353.0	48.7	22.2	New York	Guayaquil	(9)	1,001	5,226	3,617	
Ucayali	29	19.30	3	13.15	3	19.14	3	20.54	Peruvian	Peruvian Line	374.0	46.3	18.6	Cristobal	Callao	General	862	4,466	2,405	
General Getty			3	6.45	3	14.54	5	9.38	American	U. S. Army	89.0	22.0		Cristobal	Balboa	Ballast				
West Camargo	3	13.25	4	6.04	4	13.56	4	14.59	American	Swayne & Hoyt (S. B.)	410.5	54.0	22.6	Buenos Aires	Seattle	General	6,055	6,624	4,910	
Commercial Pathfinder	3	13.55	4	6.30	4	14.56	4	16.03	American	Moore & McCormack, Inc	395.0	49.0	23.0	New York	Seattle	General	5,700	5,220	3,734	
Laura C. Hall [5]	2	19.25	4	6.30	4	14.52	5	14.48	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	86	132	72	
Leise Maersk [6]	3	15.15	4	6.32	4	15.32	4	16.33	Danish	A. P. Moller	302.0	44.2	21.0	Puerto Mexico	Tsurumi	Asphalt	3,557	3,212	2,166	
Missourian [6]	3	16.45	4	7.36	4	15.54	4	17.02	American	American-Hawaiian Line	461.0	60.0	18.0	New York	Seattle	General	3,000	8,567	6,020	
Colin H. Livingstone	3	17.25	4	7.05	5	10.51			American	Barber Line (S. B.)	417.3	53.0	25.0	New York	Manila	General	6,700	6,586	4,855	
Agwistone [1]	4	1.35	4	8.32	4	16.55	4	17.56	American	Atl. Gulf & W. I. S. S. Co	499.9	68.1	24.0	New York	Los Angeles	Ballast		10,853	7,804	
Westmeath	4	6.15	4	8.23	4	17.01	4	18.25	British	Union Steamship Co	475.0	56.1	26.3	New York	Sydney	General	3,335	9,485	6,689	
Newport	27	19.43	4	10.53	4	17.50	4	23.20	American	Pacific Mail Steamship Co	326.0	38.0	18.0	Cristobal	San Francisco	General	1,904	3,173	2,163	
Knockfierma	3	20.05	4	12.35	4	19.25	4	20.30	British	Limerick Steamship Co	400.0	52.0	16.0	Cardiff	Grays Harbor	Ballast		5,828	4,095	
Ulysses [7]	31	17.43	5	6.12	5	14.08			American	Panama Railroad Steamship Line	514.0	65.0	19.0	Norfolk	Balboa	Ballast		11,519	6,930	
Salvador	30	20.05	5	7.12	5	14.57	5	16.00	British	Pacific Steam Navigation Co	215.0	33.5	15.0	Cristobal	Champerico	General	321	1,270	735	
Buenos Aires [6]	4	15.15	5	7.22	5	15.18	5	16.28	Swedish	Johnson Line	426.0	56.0	25.0	Stockholm	Seattle	General	8,262	7,591	5,661	
Mexico Maru	4	15.36	5	8.40	5	16.41	5	17.53	Japanese	Osaka Shosen Kaisha	400.0	51.0	25.0	Buenos Aires	Kobe	(10)	4,014	6,067	4,230	
Alrich	5	5.10	5	10.30	5	18.13	5	23.41	German	Roland Line	361.7	51.4	19.0	Hamburg	Vancouver	General	2,918			

[1] Tanker. [5] Motor schooner. [6] Motor ship. [7] Collier. [8] General, oil, steel, rails, sheets, and machinery. [9] Cement, machinery and cotton goods. [10] Cotton, steel sheets, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ansaldo San Giorgio II	29	11.15	30	6.19	30	13.45	30	13.45	Italian	Societa Nazionale di Navigazione	391.0	51.6	21.8	Valparaiso	Genoa	General	5,605	5,591	3,975	
Eastern Planet	29	16.15	30	6.36	30	14.35	30	14.35	American	U. S. & A. Line (S. B.)	384.8	51.2	17.0	Newcastle	New York	(11)	700	6,235	4,480	
J. N. Pew [1]	29	17.45	30	7.14	30	15.22	30	15.22	American	Sun Oil Co	480.5	66.0	28.6	San Pedro	Philadelphia	Crude oil	13,290	9,494	6,612	
James McGee [1]	29	21.25	30	7.24	30	17.16	30	17.16	American	Standard Oil Co	499.1	88.2	30.0	San Pedro	New York	Crude oil	15,174	10,964	7,909	
Jamaica	29	21.50	30	8.02	30	16.00	1	7.15	British	Pacific Steam Navigation Co	220.0	33.1	12.0	Buenaventura	Cristobal	General	568	1,187	622	
Volumnia	29	22.10	30	8.05	30	17.00	30	19.10	British	Gow, Harrison & Co	423.0	56.0	23.0	Vancouver	Marseilles	Wheat	8,223	6,229	4,524	
Dixie Arrow [1]	30	8.30	30	9.24	30	17.48	30	17.48	American	Standard Transportation Co	468.3	62.7	28.0	Los Angeles	Providence	Crude oil	12,000	9,744	7,140	
Samuel Q. Brown [1]	30	6.30	30	9.59	30	18.26	30	18.26	American	Tidewater Oil Co	424.4	58.2	26.6	San Pedro	New York	Crude oil	10,100	7,333	5,246	
Maple Branch	30	9.45	30	10.31	30	18.38	30	18.50	British	F. & W. Ritson	420.0	52.0	24.6	Valparaiso	Liverpool	General	7,005	5,618	4,116	
Harry Luckenbach	30	9.50	30	11.03	30	19.25	30	20.25	American	Luckenbach Line	448.9	60.2	27.0	Portland	New York	Lumber, general	6,923	9,262	6,853	
Salvador	30	10.00	30	11.28	30	20.05	5	7.12	British	Pacific Steam Navigation Co	225.0	35.4	16.9	Champerico	Cristobal	(12)	932	1,270	735	
Cape Ann [1]	30	10.00	30	13.05	30	21.08	30	21.08	American	Cape Steamship Co	425.8	57.0	26.9	San Pedro	New York	Crude oil	10,000	7,484	5,216	

[1] Tanker. [11] Wool, copper, general. [12] Coffee, wood, sugar, etc.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Susherico	30	12.30	31	6.15	31	13.43	31	14.55	American	Transmarine Corporation	324.0	46.2	24.0	Portland	New York	Lumber, raisins	2,615	3,984	2,612
Amasis	30	16.00	31	6.42	31	14.52	31	17.20	German	Kosmos Line	407.0	55.3	22.9	Valparaiso	Hamburg	General	6,727	7,286	5,174
Trident	30	16.40	31	7.03	31	16.10	31	17.10	British	Hall Brothers	375.0	51.1	22.6	Antofagasta	New Orleans	Nitrates	6,800	4,718	3,408
San Ricardo [1]	30	22.15	31	7.42	31	16.45	31	16.45	British	Anglo-Saxon Petroleum Co	420.1	54.7	27.0	San Pedro	Tampico	Crude oil	8,856	6,598	4,531
Charles McCormack	31	0.06	31	7.52	31	17.20	31	17.20	American	McCormack Intercoastal Co	401.4	53.2	26.0	Everett	New York	Lumber, copper	4,553	7,082	5,167
John Worthington [1]	31	3.45	31	8.36	31	17.59	31	17.59	American	Standard Oil Co. of N. J.	462.4	60.2	27.6	San Pedro	New York	Crude oil	11,500	8,491	6,096
Atland	31	7.00	31	8.55	31	18.25	31	20.00	Swedish	Axel Brostroh & Son	390.0	52.3	25.0	Iquique	Azores [14]	Nitrate	7,296	5,631	3,343
Antar	31	7.00	31	10.07	31	19.30	31	20.48	British	Egypt & Levant Steamship Co	420.0	54.0	27.0	Vancouver	Norfolk [14]	Grain	9,500	6,510	4,711
West Notus	31	8.30	31	10.37	31	19.48	31	23.25	American	Swayne & Hoyt, Inc. (S. B.)	410.5	54.3	24.2	San Francisco	Buenos Aires	Wheat, general	6,226	6,583	4,914
San Silvestre	31	17.00	1	6.27	1	13.20	1	13.20	British	Eagle Oil Transport Co	420.5	54.6	19.6	Valparaiso	Tampico	Ballast	.....	6,588	4,546
Huguenot [1]	31	16.10	1	6.48	1	14.55	1	14.55	American	McAllister Brothers (S. B.)	434.9	56.2	26.9	San Pedro	New York	Crude oil	10,100	7,394	5,099
George H. Jones [1]	1	4.00	1	7.21	1	16.00	1	16.00	American	Standard Oil Co	429.3	59.2	27.4	San Pedro	New York	Crude oil	10,800	7,689	5,383
Halsey [1]	1	5.00	1	8.24	1	16.40	1	21.15	American	C. D. Mallory & Co	435.0	56.0	28.11	San Pedro	New York	Crude oil	10,857	7,643	5,289
Aymeric	1	14.40	2	6.19	2	14.18	2	16.15	British	A. Weir & Co	400.2	52.2	24.5	Junin	Cristobal [14]	Nitrate	7,500	6,076	4,395
Muskogee [1]	1	18.30	2	7.08	2	15.30	2	15.30	American	Standard Oil Co. of N. J.	450.9	57.9	27.0	San Pedro	New York	Crude oil	9,600	7,571	5,193
Hercules	1	19.30	2	8.20	2	17.19	.....	.....	Spanish	Compania Anomia Maritime	360.0	48.1	24.2	Mejillones	Gibraltar	Nitrates	6,200	4,229	2,777
Californian [13]	2	3.34	2	9.04	2	16.45	2	16.45	American	American-Hawaiian Line	445.1	59.8	19.3	Puget Sound	Boston	General	3,700	8,567	6,020
Laura C. Hall	1	1.00	2	12.00	2	19.25	4	6.30	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	([15])	3	132	72
Norman Monarch	2	15.00	3	6.25	3	13.52	3	14.25	British	Wessel Duval & Co	400.6	52.25	24.0	Tocopilla	Pensacola	Nitrate of soda	7,640	5,568	4,146
George G. Henry [1]	2	18.50	3	6.49	3	15.15	3	15.15	American	Huasteca Petroleum Co	435.0	56.0	28.0	San Pedro	New Orleans	Crude oil	8,600	7,221	4,988
Potosi	2	20.15	3	7.10	3	16.40	3	18.00	British	Pacific Steam Navigation Co	381.0	49.0	25.0	Corral, Chile	Liverpool	General	6,149	5,559	4,201
E. L. Doheny 3d [1]	3	3.00	3	8.14	3	16.45	3	16.45	American	Pan-Amer. Pet. & Transp. Co	467.6	62.7	30.0	San Pedro	New Orleans	Crude oil	12,800	9,666	7,034
Venice Maru	3	8.25	3	9.06	3	17.35	3	17.35	Japanese	M. Katoaka	405.0	53.0	27.9	Vancouver	Fayal [14]	Wheat	8,098	7,025	5,025
Cerro Azul [1]	3	8.50	3	9.40	3	17.50	3	17.50	American	Pan-Amer. Pet. & Transp. Co	480.5	66.0	27.0	San Pedro	New Orleans	Crude oil	13,000	9,398	6,453
London Merchant	3	4.30	3	10.28	3	18.35	3	18.35	British	Furness, Withy & Co	450.4	58.1	30.0	Vancouver	London	General	9,600	8,416	5,720
Agwisun [1]	3	10.50	3	13.55	3	22.45	4	0.52	American	Ward Line	429.3	59.2	27.0	Los Angeles	New York	Crude oil	10,243	7,612	5,402
Trontolite [1]	3	11.20	3	12.10	3	21.10	3	21.10	British	Imperial Oil Co., Ltd	420.8	57.0	28.0	Lobitos	Halifax	Crude oil	9,446	7,240	4,713
Sciota [16]	2	19.54	3	13.14	3	21.00	.....	.....	American	U. S. Navy	155.0	30.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Pyro	31	7.15	4	6.31	4	13.15	5	15.00	American	U. S. Navy	483.1	60.1	21.0	San Diego	Hampton R'ds	Ammunition	1,290	.....	.....
Charles H. Cramp	3	19.15	4	6.46	4	14.30	4	14.45	American	Argonaut Steamship Lines	404.6	53.9	28.0	Seattle	New York	Lumber, general	6,895	6,755	4,750

[1] Tanker. [13] Motor ship. [14] For orders. [15] Platinum and oil drums. [16] Tug.

Magellan[1]	3	18.30	4	7.17	4	16.30	4	23.15	British	Pacific Steam Navigation Co	461.6	59.3	26.6	Corral	Liverpool	([20])	9,184	8,817	6,063
O-1 [17]			4	7.43	4	16.15			American	U. S. Navy	175.0	16.4		Balboa	Coco Solo				
O-10 [17]			4	7.48	4	16.15			American	U. S. Navy	175.0	16.4		Balboa	Coco Solo				
Beavorlich	4	3.35	4	7.51	4	17.00	4	18.15	British	Ben Line	400.6	52.2	25.0	Vancouver	Kingston [19]	Wheat	7,102	5,770	4,073
Aconcagua	4	7.10	4	8.17	4	18.00	5	0.45	Chilean	Chilean Line	422.8	56.2	27.0	Valparaiso	New York	General	5,230	7,758	4,705
Volunteer	1	15.25	4	9.20	4	10.08	5	13.05	American	Tampa-Interocean Steamship Co	410.0	56.0	24.0	Taku	New York	General	6,500	8,214	6,217
Cape Cod [1]	4	3.40	4	10.51	4	20.02	4	20.45	American	Pure Oil Steamship Co	425.8	57.0	27.6	San Pedro	Bayonne, N.J.	Crude oil	10,224	7,218	4,955
Director	4	10.30	4	11.40	4	19.10	4	19.08	British	T. and J. Harrison	398.5	48.6	25.2	Vancouver	Liverpool	([21])	6,400	5,472	3,753
Dinteldijk	5	3.00	5	7.30	5	15.55	5	17.10	Dutch	Holland-American Line	485.6	62.3	29.5	Los Angeles	Rotterdam	General, grain	10,110	10,786	7,551
Acme [1]	5	9.10	5	9.51	5	17.20	5	17.20	American	Standard Oil Co. of N. J.	435.0	56.0	27.0	San Pedro	Providence	Crude oil	9,364	15,476	4,354
Julia Luckenbach	5	10.45	5	12.31	5	19.58	5	23.20	American	Luckenbach Line	436.6	57.2	28.6	Portland, Ore.	New York	([22])	7,692	8,543	6,402
Byron D. Benson [1]	5	0.45	5	11.14	5	18.40	5	18.40	American	Tidewater Oil Co	465.4	60.2	27.0	San Pedro	New York	Crude oil	12,000	8,546	6,095
Bethore	5	0.05	5	15.24	6	14.55	6	16.35	American	Ore Steamship Corporation	550.3	72.2	34.4	Cruz Grande	New York	Iron ore	19,600	15,476	4,354
Jack [18]			5	7.00	5				American	J. A. Walker	18.5	5.0		Balboa	Gamboa				

[1] Tanker. [17] Submarine. [18] Launch. [19] For orders. [20] Wheat, sugar, general. [21] Wheat, lumber, and canned goods. [22] General, lumber, and shingles.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
December 30.	Tivives	United Fruit Co	New Orleans via Habana.
December 30.	Yuma	Di Giorgio Fruit Co	Frontera, Mex.
December 30.	Delilian	Leyland Line	Liverpool via wayports.
December 31.	Yuma	Di Giorgio Fruit Co	San Blas.
December 31.	Ulua	United Fruit Co	Port Limon.
January 1.	Panama	Panama Railroad Steamship Line	New York via Haiti.
January 1.	Tsad	Hamburg-American Line	Puerto Barrios.
January 1.	San Bruno	United Fruit Co	Boston via Habana.
January 1.	Toloa	United Fruit Co	New York via Habana.
January 1.	Macoris	French Line	Havre via wayports.
January 2.	Turrialba	United Fruit Co	New Orleans via Habana.
January 2.	Santa Marta	United Fruit Co	New York via Kingston.
January 3.	Camden	United Fruit Co	Houston.
January 4.	St. Mihiel [23]	U. S. Army	New York via San Juan.
January 4.	Yuma	Di Giorgio Fruit Co	San Blas.

*DEPARTURES.

Date.	Vessel.	Line.	For—
December 30	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.
December 30	Tivives	United Fruit Co	Port Limon and Bocas.
December 31	Yuma	Di Giorgio Fruit Co	San Blas.
January 1.	Ulua	United Fruit Co	New York via Habana.
January 1.	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
January 1.	Delilian	Leyland Line	New Orleans.
January 1.	Yuma	Di Giorgio Fruit Co	San Blas.
January 2.	Toloa	United Fruit Co	Port Limon.
January 3.	Santa Marta	United Fruit Co	Colombian ports.
January 3.	Tsad	Hamburg-American Line	Puerto Colombia.
January 3.	Turrialba	United Fruit Co	New Orleans via wayports.
January 3.	San Bruno	United Fruit Co	Boston via Limon.
January 4.	Camden	United Fruit Co	Baytown via wayports.
January 4.	Macoris	French Line	Havre via wayports.
January 5.	Yuma	Di Giorgio Fruit Co	New Orleans.

[23] Transport.

PORT OF BALBOA.

December 31.	Atrato	Colombian Transport Co	Buenaventura.	January 3.	Atrato	Colombian Transport Co	Buenaventura.
January 1.	Anomia [1]	Anglo-Saxon Petroleum Co	San Francisco.	January 4	Anomia	Anglo-Saxon Petroleum Co	San Pedro.
January 2.	Jeptha	General Steamship Corp. (S. B.)	Valparaiso.	January 4.	Jeptha	General Steamship Corp. (S. B.)	Tacoma.
January 4	Ginyo Maru	Toyo Kisen Kaisha	Valparaiso.	January 5	Ginyo Maru	Toyo Kisen Kaisha	Hong Kong.

[1] Tanker.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in December, 1923, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
United States intercoastal:							
United States	111	496,760	623,171	790,966	497,598	$500,523.45	212,408
United States to Far East:							
British	9	39,146	52,636	62,017	39,227	48,932.50	73,624
Japanese	5	21,771	25,454	32,472	21,457	27,061.80	39,088
Norwegian	2	6,934	9,171	11,417	6,892	8,667.50	15,745
United States	11	43,462	55,592	65,584	43,181	54,140.40	75,081
Totals	27	111,313	142,853	171,490	110,847	138,802.20	203,538
From Europe to United States:							
British	11	38,214	48,034	59,620	36,671	36,154.92	46
Dutch	4	20,341	24,894	31,274	19,261	20,593.84	12,161
French	2	4,196	5,020	6,798	4,268	10,745.00	2,763
German	2	5,305	7,169	8,334	5,035	6,631.25	11,103
Norwegian	2	8,186	10,351	13,054	8,136	9,055.03	5,393
Swedish	1	3,386	5,456	5,558	4,246	4,232.50	6,558
United States	2	7,436	8,847	12,148	7,493	6,369.84	.....
Totals	24	87,064	109,771	136,786	85,110	93,782.38	38,018
From United States to South America.							
British	5	16,320	19,997	25,976	16,042	18,198.21	6,872
Danish	1	3,585	4,418	5,702	3,583	3,189.96	.....
Japanese	1	4,086	5,081	6,577	4,044	3,658.32	.....
Norwegian	2	4,341	6,043	7,041	4,388	5,426.25	3,157
Peruvian	1	3,510	3,544	4,763	3,089	4,300.80	1,272
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	1,077
United States	10	37,554	43,061	61,521	37,131	35,998.56	14,571
Totals	21	70,653	83,623	113,740	69,831	72,334.35	26,949
From Europe to South America:							
British	5	18,623	23,757	30,119	18,919	23,278.75	17,664
Chilean	1	1,208	1,504	2,167	1,264	1,510.00	1,031
Dutch	2	8,043	10,504	11,422	6,801	10,053.75	10,474
German	4	12,016	17,288	19,770	12,075	15,020.00	14,249
Italian	3	10,837	12,587	16,902	10,166	13,420.10	2,698
Norwegian	1	287	307	371	288	358.75	440
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	208
Totals	17	54,298	69,844	86,368	52,855	67,746.35	46,764
From Europe to Canada:							
British	7	26,662	31,280	39,543	24,736	23,554.76	.....
Danish	1	4,082	4,490	4,076	2,506	3,232.80	.....
French	1	4,613	4,639	5,446	3,367	5,566.80	3,389
Spanish	1	3,418	4,333	5,718	3,409	3,119.76	.....
Totals	10	38,775	44,742	54,683	34,018	35,474.12	3,389
Foreign ships in ballast, United States intercoastal:							
British	4	22,435	25,275	30,766	19,052	21,503.92	38
Norwegian	3	7,234	8,867	9,744	5,876	7,090.06	.....
Swedish	1	3,326	3,979	5,673	4,161	2,864.88	.....
Totals	8	32,995	38,121	46,183	29,089	31,458.86	38
From Europe to Australasia:							
British	9	57,894	72,030	91,488	58,163	72,367.50	61,468
From United Sattes to Australasia:							
British	7	31,144	36,141	47,028	29,351	38,614.15	35,381
Japanese	1	4,385	4,736	5,873	4,254	5,481.25	2,245
United States	1	4,445	4,415	5,838	4,493	5,298.00	4,083
Totals	9	39,974	45,292	58,739	38,098	49,393.40	41,709
From United States to Canada:							
British	1	3,777	4,371	4,844	3,038	3,147.12	.....
Japanese	3	12,395	13,739	17,778	12,243	11,322.76	8,181
Norwegian	1	3,314	4,755	5,254	3,246	3,423.60	.....
Spanish	1	3,674	4,235	5,754	3,452	3,049.20	.....
United States	2	5,772	6,316	7,928	5,693	5,179.38	2,865
Totals	8	28,932	33,416	41,558	27,672	26,122.06	11,044
From Cristobal, C. Z. to South America:							
British	4	1,879	1,563	4,105	1,987	2,012.55	816
Peruvian	1	1,506	2,951	4,744	2,673	1,882.50	597
Totals	5	3,385	4,514	8,849	4,660	3,895.05	1,413
From Mexico to South America:							
British	5	21,486	24,692	36,481	22,396	26,857.50	48,607

ATLANTIC TO PACIFIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
South American intercoastal:							
Danish	1	3,412	3,458	3,939	2,510	$2,559.00	.....
Peruvian	2	3,894	5,173	8,003	4,764	4,867.50	3,672
Totals	3	7,306	8,631	11,942	7,274	7,426.50	3,672
From Europe to Canada:							
British	3	12,910	16,225	20,366	12,874	16,137.50	11,274
From Cristobal, C. Z. to United States:							
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,500
United States	2	4,281	4,687	6,179	4,468	3,794.25	1,675
Totals	3	6,444	7,146	9,583	6,631	6,498.00	3,175
Canada intercoastal:							
British	2	2,858	3,233	4,806	2,941	2,729.50	1,238
From Canada to Australasia:							
British	2	7,104	9,637	11,570	7,146	8,880.00	5,178
From Europe to Mexico:							
German	2	4,056	6,056	6,695	4,084	5,070.00	2,785
From Cristobal, C. Z. to Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	1,882
From West Indies to United States:							
British	1	3,856	6,160	6,190	3,849	4,435.20	.....
United States	1	4,469	5,193	7,034	4,436	3,738.96	.....
Totals	2	8,325	11,353	13,224	8,285	8,174.16	.....
From South America to United States:							
United States	1	6,195	8,443	10,534	6,195	7,743.75	5,570
From Mexico to Far East:							
Danish	1	1,938	2,510	3,252	1,985	2,422.50	4,158
From Central America to Balboa, C. Z.:							
United States	1	923	950	1,768	981	1,140.00	.....
From Cristobal, C. Z. to Balboa, C. Z.:							
Colombia	1	22	22	27	22	16.50	.....
From Gatun, C. Z. to Cristobal, C. Z.:							
United States	1	31	26	46	31	23.25	.....
Totals, December, 1923	278	1,102,927	1,367,742	1,733,542	1,090,090	1,186,626.38	734,278
Totals, December, 1922	161	574,251	717,877	907,121	564,475	659,185.59	560,418
Totals, December, 1921	135	468,028	575,669	750,502	459,490	571,743.49	517,110

[1] Includes 1 French cruiser of 11,000 tons displacement. [2] Excess of bunker coal.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	105	494,117	610,903	785,179	495,210	$616,428.80	986,895
From South America to United States:							
British	8	31,490	40,330	51,830	31,802	39,362.50	64,836
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,203
Italian	1	4,052	3,997	5,340	3,177	4,796.40	7,646
Norwegian	5	17,179	19,362	24,231	16,438	21,012.05	35,805
Peruvian	1	1,483	1,529	1,866	1,169	1,834.80	2,470
United States	8	29,380	35,606	45,764	28,987	36,491.45	50,335
Totals	24	87,063	105,496	136,320	85,459	107,845.95	166,295
From South America to Europe:							
British	15	56,660	72,524	86,912	55,457	70,782.40	103,798
Danish	1	1,709	2,460	2,686	1,692	2,136.25	4,540
Dutch	3	10,442	14,049	16,684	10,086	13,052.50	22,498
French	1	4,483	4,515	4,731	2,912	5,418.00	7,879
German	6	19,140	25,973	31,247	19,234	23,925.00	39,028
Italian	2	6,524	7,179	9,630	5,898	8,008.55	10,433
Japanese	1	4,359	4,710	5,825	4,227	5,448.75	8,000
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,930
Norwegian	1	2,189	3,160	3,664	2,178	2,736.25	6,800
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	5,642
Swedish	1	2,976	3,343	5,029	2,700	3,720.00	7,396
United States	1	5,992	5,981	7,930	5,867	7,177.20	11,367
Totals	35	122,002	153,761	188,350	119,500	151,814.90	234,311

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	of cargo.
From Canada to Europe:							
British	10	35,437	46,852	56,742	35,515	$44,296.25	69,457
French	1	6,077	7,083	9,802	5,532	7,596.25	10,384
Japanese	1	4,264	4,672	5,823	4,261	5,330.00	7,500
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	5,516
Totals	13	48,037	62,507	76,172	48,141	60,046.25	92,851
From United States to Europe:							
British	3	14,069	16,509	19,974	12,425	17,586.25	18,366
Dutch	1	3,514	4,395	5,789	3,381	4,392.50	7,151
French	1	4,953	5,298	5,693	3,499	6,191.25	7,502
German	1	3,562	4,693	5,556	3,575	4,452.50	7,548
Norwegian	2	8,166	9,226	12,098	8,023	10,207.50	14,912
United States	4	13,821	19,600	22,988	14,796	17,276.25	29,672
Totals	12	48,085	59,721	72,098	45,699	60,106.25	85,151
From South America to Cristobal:							
British	3	1,291	1,316	2,387	1,304	1,571.55	1,008
Colombian	1	334	335	864	614	402.00	560
Japanese	2	8,495	9,836	12,450	8,366	10,618.75	17,579
Peruvian	2	2,495	5,356	8,049	4,187	3,118.75	4,177
Totals	8	12,615	16,843	23,750	14,471	15,711.05	23,264
From United States to Mexico:							
British	5	28,234	32,013	44,945	28,240	35,292.50	59,312
From Canada to United States:							
British	1	4,110	4,711	6,503	4,088	5,137.50	9,500
United States	3	11,475	15,680	18,754	12,152	14,343.75	22,414
Totals	4	15,585	20,391	25,257	16,240	19,481.25	31,914
From Australasia to Europe:							
British	1	6,952	8,751	11,158	7,113	8,690.00	6,757
French	1	4,287	5,364	7,129	4,332	5,358.75	3,950
Swedish	1	2,678	4,468	4,585	3,207	3,347.50	7,650
Totals	3	13,917	18,583	22,872	14,652	17,396.25	18,357
From Central America to Cristobal:							
British	2	1,286	1,441	2,298	1,304	1,607.50	1,627
From Far East to United States:							
Japanese	3	12,257	16,202	19,602	12,023	15,321.25	8,857
From United States to South America:							
United States	2	7,039	9,845	11,297	7,046	8,798.75	14,393
From United States to Cristobal:							
United States	2	4,768	5,301	6,848	4,961	5,833.10	1,415
From South America to Mexico:							
British	2	8,578	9,554	14,673	8,545	6,878.88	.....
From Australasia to United States:							
British	1	3,208	4,083	5,244	3,230	4,010.00	4,119
United States	1	3,604	4,480	5,816	3,604	4,505.00	700
Totals	2	6,812	8,563	11,060	6,834	8,515.00	4,819
From Far East to Europe:							
Danish	1	5,233	5,660	6,919	5,223	6,541.25	9,201
From Balboa to Cristobal:							
Panaman	1	26	26	33	26	19.50	.....
From Central America to United States:							
United States	1	719	730	818	708	898.75	1,268
From South America to West Indies:							
British	1	3,116	4,071	4,896	3,136	3,895.00	7,504
From South America to Canada:							
British	1	4,133	4,752	7,116	3,997	5,166.25	14,000
South American intercoastal:							
Peruvian	1	1,204	2,386	4,408	2,090	1,505.00	1,982
Totals, December, 1923	228	924,826	1,148,749	1,464,911	923,505	1,149,103.43	1,760,356
Totals, December, 1922	143	529,974	657,386	827,557	526,957	653,384.53	974,684
Totals, December, 1921	102	359,312	441,575	563,997	360,941	431,854.78	435,943

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended January 7:

Steamships *Ulysses*, repair bulkheads, topside tanks; reinforce deck in way of lead blocks at pad eyes No. 4 winch; clean main condenser, and boilers; continue scaling and cement-washing topside tanks; renew sounding tubes in topside tanks, etc.; *Salvador*, bore cylinder of ice machine, make new rod and piston also two sets of rings; manufacture two sets of rings for dynamo engine, new valve for hand pump, one set rings for circulating pump, new spindle for feed pump, stop valve, new rail stanchion, and one hatch bar; renew two lengths of suction pipe and two lengths of discharge pipe for pumps, also two lengths of wash deck pipe; repair and test gauges, etc.; *Panama*, manufacture wrench for crosshead bolts, and two hatch battens; clean feed water heater coils; install liner in water end of feed pump; weld No. 1 port winch frame and eye lug of band; repair No. 6 tank suction, wetting-down pipe in fire room, water column valve, No. 1 tank, fire tools, deck plating in between deck bunkers, sheaves of steering gear in No. 3 hold, stanchion in No. 2 between deck, gate on saloon deck, bulkhead under door leading to windlass room, leak in No. 3 between decks, hatch coamings, and fountain blocks No. 2 hatch; install extra coils in pantry steam press; renew forestay, top mast stay and top gallant stay; repair plumbing, etc.; tug *Supply No. 2*, repair No. 1 cylinder as directed and fit new rings in all cylinders; schooner *Irene S. Wilkinson*, repair pump engine, one bilge pump forward and two bilge pumps aft; repair spanker, etc.; yacht *Gloriana*, dock and clean bottom; change propeller; install new shoe; repair deck and manufacture new seat cushion.

Minor repairs—Steamships *J. H. Plummer*, *Ansaldo San Giorgio III*, *Oranje Nassau*, *Alrich*, *Wm. G. Warden*, *Santa Ana*, *Newport*, *Jamaica*, *Hercules*, *Yarborough*, *Lantaro*, yacht *Silver Star*; schooner *Talamanca*; tug *Porto Bello*, and launches *Cruces* and *Helen Louise*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 5, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Tivives	United Fruit Co	December 30.	December 30.	(1)	63
Santa Malta	Pacific Mail Steamship Co		December 30.		269
Delilian	Leyland Line	December 30.	January 1.	724	273
Salvador	Pacific Steam Navigation Co	December 30.	January 5.	933	322
Jamaica	Pacific Steam Navigation Co	December 30.	January 1.	568	(3)
Ulua	United Fruit Co	December 31.	January 1.	1	218
Ulysses	Panama Railroad Steamship Line	December 31.		12,027	
Gen. W. C. Gorgas	Panama Railroad Steamship Line		January 1.		2,816
Panama	Panama Railroad Steamship Line	January 1.		2,207	
Lochkatrine	Pacific Steam Navigation Co	January 1.	January 2.	435	712
Teno	Chilean Line	January 1.	January 2.	(1)	257
Toloa	United Fruit Co	January 1.	January 2.	193	19
San Bruno	United Fruit Co	January 1.	January 3.	23	475
Tsad	Hamburg-American Line	January 1.	January 3.	70	950
Gen. G. W. Goethals	Panama Railroad Steamship Line	January 1.	January 3.	539	90
Ucayali	Peruvian Line		January 3.		862
Macoris	French Line	January 1.	January 4.	304	151
Laura C. Hall	Pacific Metals Corporation	January 2.	January 4.	(2)	117
Santa Ana	Grace Line	January 2.	January 3.	(1)	63
Santa Marta	United Fruit Co	January 2.	January 3.	40	295
Turrialba	United Fruit Co	January 2.	January 3.	656	202
West Camargo	Swayne & Hoyt, Inc	January 3.	January 4.	24	(3)
Camden	United Fruit Co	January 3.	January 5.	8,836	(3)
Newport	Pacific Mail Steamship Line		January 4.		1,884
Volunteer	Tampa Interocean Line	January 4.	January 5.	444	(3)
Aconcagua	Chilean Line	January 4.	January 5.	7	(3)
Buenos Aires	Johnson Steamship Line	January 4.	January 5.	41	(3)
I. C. White	Pan-American Petroleum Co	January 5.		9,357	

[1] No cargo discharged. [2] 144 pounds. [3] No cargo laded.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 5, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Jamaica	Pacific Steam Navigation Co	December 30.	December 30.	1	.....
Atrato	Colombian Transport Co	December 31.	January 3	13	188
U. S. S. Pyro	U. S. Navy	December 31.	January 4	52	.....
Laura C. Hall	Pacific Metals Corporation	January 1	January 2	6	.....
Volunteer	Tampa Interocean Steamship Co	January 1	January 4	594	28
Jeptha	General Steamship Corporation	January 2	January 3	181	.....
Anomia	Anglo-Saxon Petroleum Co	January 2	January 4	6,825	.....

New York to Los Angeles in Fourteen Days.

The steamer *J. L. Luckenbach* of the Luckenbach Line, which transited the Canal last on November 27,. 1923, is reported as having arrived at Los Angeles Harbor 14 days, 3 hours, and 45 minutes after leaving New York, thus establishing a new speed record for the Luckenbach Lines, and probably of all freighters.

The distance from New York to Cristobal is 1,974 nautical miles; through the Canal, 44 miles; from the Canal to Los Angeles, 2,913 miles, making a total of 4,931 or approximately 5,000 miles. The average speed of the *J. L. Luckenbach* was, accordingly, over 14.5 knots for the voyage, including stops.

Supplement No. 4.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., December 29, 1923.

ITEM 34.—STEVEDORING AND TRANSFERRING CARGO.

10. This paragraph is amended by canceling the following language:

"The minimum charge against any vessel for services rendered on the docks, including stevedoring, will be $10."

leaving the paragraph reading as follows:

10. The minimum charge on any shipment for transferring cargo will be 25 cents.

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective January 4, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.225
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Official Circulars.

Acting Governor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 9, 1924.

To all concerned—Effective January 10, 1924, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., Engineer of Maintenance, will be Acting Governor.

JAY J. MORROW,
Governor.

In Charge of Panama Railroad Affairs.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., January 9, 1924.

To all concerned—Effective January 10, 1924, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., second Vice President, will perform such duties of the President as relate to the operations of the company on the Isthmus.

JAY J. MORROW,
President, Panama Railroad Company.

Train Schedule, Fort Randolph Branch.

PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., January 7, 1924.

All concerned.—Effective with the close of business Sunday, January 13, 1924, the following Fort Randolph Branch trains will be permanently discontinued:

	a. m.
Train No. 15, leaving 3d Street, Colon	6.58
Train No. 17, leaving 3d Street, Colon	11.00
	p. m.
Train No. 19, leaving 3d Street, Colon	1.00
	a. m.
Train No. 16, leaving Fort Randolph	8.30
Train No. 18, leaving Fort Randolph	11.30
	p. m.
Train No. 20, leaving Fort Randolph	1.30

and the following train service established effective Monday, January 14:

Leave:	a. m.	a. m.	a. m.
3d Street, Colon	6.50	10.00	11.50
7th Street	6.52	10.02	11.52
Cristobal Commissary.	6.54	10.04	11.54
Tower "B"	6.57	10.07	11.57
Half-way Siding	.....	.....	.....
			p. m.
France Field	7.03	10.13	12.03
Coco Solo station	7.09	10.19	12.09
Arrive:			
Fort Randolph	7.15	10.25	12.15
Leave:			
Fort Randolph	7.20	10.30	1.00
Coco Solo station	7.25	10.35	1.05
France Field	7.30	10.40	1.10
Half-way Siding	.....	.....	.....
Tower "B"	7.38	10.48	1.18
Cristobal Commissary.	7.41	10.51	1.21
7th Street, Colon	7.43	10.53	1 23
Arrive:			
3d Street, Colon	7.45	10.55	1.25

All other Fort Randolph Branch trains shown on present timetable (No. 36), not mentioned above, will continue in effect.

W. J. BISSELL,
Acting Master of Transportation.

Approved:
W. F. FOSTER,
Acting Superintendent.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
   Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "B:"	
Ward 5, Male, private rooms, and American boys' ward	Daily 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, and American girls' ward	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U.	
Ward 14, American, male, G. U.	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.30 to 4.30 p. m.
Ward 17, Colored, children	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White, children	Daily 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., January 16, 1924. No. 23.

Tank Ships Through the Panama Canal During the Calendar Year, 1923.

During the calendar year, 1923, 1,704 tank ships transited the Canal. The Panama Canal net tonnage of these 1,704 vessels was 10,079,921; they paid $8,967,647.41 tolls, and carried 9,625,714 tons of cargo. This is 33.8 per cent of the total number of transits during the year, 40.74 per cent of the total Panama Canal net, 39.08 of the tolls collected, and 38.25 per cent of the cargo carried through the Canal during the year.

In the following tabulation is shown the number of tank ships, the Panama Canal net tonnage, tolls collected, and cargo carried for each month of the year 1923, segregated by direction and whether laden or ballast, together with totals for the half year periods and for the full year:

Month.	No. of vessels.		Panama Canal net.			Tolls.	Tons of cargo.
	Ballast	Laden	Ballast.	Laden.	Total.		
Atlantic to Pacific.							
January, 1923	28	5	172,949	24,293	197,242	$151,040.57	24,596
February	38	3	245,376	15,065	260,441	195,235.01	19,196
March	64	5	384,963	26,403	411,366	308,245.57	30,785
April	72	3	423,339	18,356	441,695	326,347.15	34,033
May	83	8	479,227	40,253	519,480	387,582.12	56,356
June	83	5	486,642	27,048	513,690	380,224.05	47,859
Totals, half year	368	29	2,192,496	151,418	2,343,914	1,748,674.47	212,825
July	82	5	475,092	26,445	501,537	374,940.25	13,366
August	88	7	518,408	39,679	558,087	414,114.74	68,148
September	65	5	376,760	26,790	403,550	300,127.25	41,023
October	76	7	463,387	37,299	500,686	373,769.67	67,738
November	57	5	329,608	22,608	352,216	262,248.94	38,826
December	76	7	451,717	34,408	486,125	364,080.02	60,107
Totals, half year	444	36	2,614,972	187,229	2,802,201	2,089,280.87	289,208
Totals for year	812	65	4,807,468	338,647	5,146,115	3,837,955.34	502,033
Pacific to Atlantic.							
January, 1923	1	17	4,942	95,301	100,243	103,694.99	170,796
February	1	31	4,885	189,169	194,054	202,032.70	315,173
March	3	47	12,120	289,773	301,893	318,772.01	540,859
April	2	71	9,412	433,783	443,195	454,587.61	822,179
May	1	82	4,723	497,084	501,807	523,185.17	930,862
June	1	84	4,723	486,756	491,479	521,017.86	933,702
Totals, half year	9	332	40,805	1,991,866	2,032,671	2,123,290.34	3,713,575
July	3	81	16,500	482,230	498,730	513,172.70	914,150
August	2	76	9,554	461,714	471,268	493,727.58	886,519
September	2	87	9,554	512,399	521,953	544,243.53	982,297
October	1	70	4,821	420,015	424,846	438,672.42	803,194
November	4	79	17,877	478,359	496,236	514,837.52	908,993
December	2	79	9,554	478,548	488,102	501,747.98	914,957
Totals, half year	14	472	67,870	2,833,265	2,901,135	3,006,401.73	5,410,110
Totals for year	23	804	108,675	4,825,131	4,933,806	5,129,692.07	9,123,681
Total through Canal during year	835	869	4,916,143	5,163,778	10,079,921	8,967,647.41	9,625,714

In January, 1923, the aggregate Panama Canal net tonnage of tank ships transiting the Canal totaled 297,485 tons and represented 18.04 per cent of the aggregate net tonnage of all vessels transiting the Canal. In December, 1923, the aggregate net tonnage totaled 974,227 tons, an increase over the month of January of 327 per cent, and represented 38.71 per cent of the total net tonnage transiting the Canal during December.

The aggregate cargo tonnage carried in tank ships during the month of January, 1923, was 195,392 tons, and represented 12.3 per cent of the total cargo passing through the Canal during the month. In December, 1923, the cargo tonnage carried in tank ships was 975,064 tons, an increase over January, 1923, of approximately 500 per cent, and represents 39.09 of the total cargo through the Canal during December.

In THE PANAMA CANAL RECORD of January 24, 1923, there was published a table showing the total tanker traffic through the Canal for 1922. The Panama Canal net tonnage of tank ships transiting the Canal during 1922 was 1,557,931 tons, as against 10,079,921 tons for 1923, an increase of over 647 per cent. The cargo carried in tank ships during 1922 was 1,423,695 tons, as against 9,625,714 tons in 1923, an increase of over 676 per cent.

Of the total transits of tank ships from the Atlantic to the Pacific during 1923, over 92 per cent were in ballast and of the total transits from the Pacific to the Atlantic over 97 per cent were laden. Of the total cargo carried through the Canal in tank ships during 1923, nearly 95 per cent passed from the Pacific to the Atlantic.

From April to December, 1923, inclusive, the cargo carried in tankers from the Pacific to the Atlantic averaged approximately 900,000 tons per month, the greater proportion of the traffic from the Atlantic to the Pacific being in ballast. The very heavy increase in tanker traffic is due to the development of the Southern California oil fields. It is authoritatively stated that the peak of production in those fields has been passed, and it is therefore to be expected that there will be a decline in this traffic. As stated in THE PANAMA CANAL RECORD of December 5, 1923, however, traffic through the Canal shows a steady and healthy increase, exclusive of tanker traffic.

Overhaul at Gatun Locks.

The triennial overhaul of the gates, valves, and all under-water parts of the locks at Gatun is to be started early in February. Owing to the large increase of traffic during the past year it was considered essential that this necessary work should be so planned and carried out that the chambers, which are to be alternately unwatered, shall be out of commission the shortest time possible. The formulation of detailed schedules was begun as early as July last, all necessary material and equipment has been assembled, and all preliminary work that could be undertaken prior to the unwatering of the locks, either by the operating force or by the Mechanical Division, has been completed. As in all overhauls, one side of the locks will always be available for traffic.

The overhaul, which includes cleaning, painting, and the repair or renewal of worn parts, will require an extra force of approximately 66 gold and 600 silver employees. Some of the gold men have been obtained by temporary detail from other divisions, and others have been employed in the United States through the Washington Office. Some

of these latter will sail from New York on January 15, and others on January 25. The necessary silver force will be recruited on the Isthmus.

Bachelor quarters for the overhaul force will be provided at Cristobal, and a labor train will be operated to carry the men to and from their work at Gatun, making three round trips each 24 hours.

After the work has been started it will be carried on night and day in three 8-hour shifts until completed. The time required has been estimated at 40 working days. The schedule has been so arranged that the work will not begin until after the Pacific Fleet has passed through the Canal, and it will be completed before the fleet returns from maneuvers in the Atlantic.

While one chamber of the locks is out of service, the lock-operating forces will work in three shifts so as to put ships through on day of arrival, as is regularly done under the present schedule of operations.

Notice to Mariners.—Prohibited Anchorages, Cristobal, C. Z.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 11, 1924.

Vessels are prohibited from anchoring to the eastward of a line from Manzanillo Point and the east end of the East Breakwater; also anchorages north of the breakwaters should, in all cases, be to the westerly of longitude 79° 55′.

M. L. WALKER,
Acting Governor.

1923 Hydrographic (Marine) Work Related to the Panama Canal.

An increasing demand for charts, nautical books, and various accessories to the ship's chart room has been noted at the branch hydrographic offices at Balboa and Cristobal. Few of the items carried in stock sell at as much as a dollar, but over $481.80 worth were sold or issued in December alone, 1,001 copies. During the calendar year, 1923, sales and issues amounted to $3,438.85 for 7,357 copies of charts and books; besides these nearly 4,000 pilot charts, etc., were given out free to navigators.

During the year, according to the recent annual report of the Hydrographic Office, Navy Department, besides surveys off Isle Grande, Panama, there has been completed survey work on the coast of Nicaragua, from Cape Gracias a Dios to Brangmans Bluff, including Miskito Cays, and shoals adjacent thereto. It is thought this, with work already done, is sufficient for safe navigational charting along the east coasts of Honduras, Nicaragua, and Costa Rica, from Gulf of Mexico ports through Yucatan Passage to the Panama Canal and northern ports of South America.

The Navy has also done extensive surveying and reconnaissance for improving charts about Cuba that will shortly be incorporated on the nautical charts. The report states there is still a dearth of lights of dependable character along the east coast of Central America.

Panama Railroad Steamship Ticket Office Removed.

The steamship ticket office of the Panama Railroad Company has removed from the former Hamburg-American Line building, in Cristobal, to the Panama Railroad station in Colon.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, December, 1923.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.					Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.[1]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total Australasia.			
North America:																							
United States—																							
North Atlantic ports	10,866	....	1,375	6,032	4,589	22,862	173,349	.....	.....	.....	173,349	62,283	4,400	7,956	41,729	116,368	2,600	30,035	13,603	46,238	16,699	375,516	51.2
South Atlantic ports	.....	....	.....	.....	.....	.....	6,010	.....	.....	.....	6,010	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,010	0.8
Gulf ports	923	....	.....	154	.....	1,077	37,444	.....	.....	9,500	46,944	16,707	30,019	.....	14,622	61,348	.....	7,800	5,688	13,488	.....	122,857	16.7
Totals, United States	11,789	....	1,375	6,186	4,589	23,939	216,803	.....	.....	9,500	226,303	78,990	34,419	7,956	56,351	177,716	2,600	37,835	19,291	59,726	16,699	504,383	68.7
East coast of Mexico	48,607	....	.....	.....	.....	48,607	.....	.....	.....	.....	.....	.....	.....	.....	4,158	4,158	.....	.....	.....	.....	.....	52,765	7.2
Cristobal, C. Z.[2]	.....	816	.....	597	412	1,825	.....	.....	5,057	.....	5,057	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,882	0.9
West Indies	3,010	....	.....	.....	.....	3,010	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,010	0.4
East coast of Canada	.....	....	.....	.....	.....	.....	.....	1,238	.....	.....	1,238	.....	.....	.....	.....	.....	.....	2,900	2,278	5,178	.....	6,416	0.9
Totals, North America	63,406	816	1,375	6,783	5,001	77,381	216,803	1,238	5,057	9,500	232,598	78,990	34,419	7,956	60,509	181,874	2,600	40,735	21,569	64,904	16,699	573,456	78.1
Europe:																							
Belgium	.....	....	.....	.....	.....	.....	10,502	.....	.....	.....	10,502	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,502	1.4
British Isles	3,668	....	.....	1,444	6,429	11,541	22,751	1,006	.....	.....	23,757	.....	.....	.....	.....	.....	49,762	.....	.....	49,762	.....	85,060	11.8
Germany	2,156	....	.....	.....	6,560	8,716	6,103	.....	1,660	.....	7,763	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16,479	2.2
Holland	.....	....	.....	.....	.....	.....	290	.....	.....	.....	290	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	290	.....
Norway and Sweden	440	....	.....	.....	.....	440	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	440	.....
Spain	208	....	.....	.....	.....	208	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	208	.....
Europe [1]	9,074	....	.....	.....	17,910	26,984	12,029	.....	.....	.....	12,029	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39,013	5.3
Totals, Europe	15,546	....	.....	1,444	30,899	47,889	51,675	1,006	1,660	.....	54,341	.....	.....	.....	.....	.....	49,762	.....	.....	49,762	.....	151,992	20.7
East coast of South America	.....	....	.....	3,260	.....	3,260	5,570	.....	.....	.....	5,570	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,830	1.2
Grand totals	78,952	816	1,375	11,487	35,900	128,530	274,048	2,244	6,717	9,500	292,509	78,990	34,419	7,956	60,509	181,874	52,362	40,735	21,569	114,666	16,699	734,278	100.0
Per cent of total cargo:																							
December, 1923	10.8	....	0.2	1.6	4.9	17.5	37.4	0.4	0.9	1.1	39.8	10.8	4.7	1.0	8.3	24.8	7.1	5.6	2.9	15.6	2.3	.....	100.0
December, 1922	7.0	0.5	1.1	3.7	2.4	14.7	50.2	1.5	1.0	0.9	53.6	9.0	4.9	0.5	2.3	16.7	6.9	6.5	0.7	14.1	0.9	.....	100.0
December, 1921	5.2	0.3	0.5	2.3	3.8	12.1	24.2	1.4	1.0	5.0	32.2	23.9	5.7	1.3	9.8	40.7	5.7	2.0	5.2	12.9	2.1	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, December, 1923.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada [2]	East coast of Mexico.	West Indies.	Cristobal, C. Z. [2]	Total, North America.	British Isles.	Belgium.	Denmark.	Norway and Sweden.	France.	Germany.	Holland.	Spain and Portugal.	Italy.	Europe. [2]	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	66,866	52,905	10,266	130,037	.....	.....	7,592	25,593	163,222	28,590	110	380	.....	1,167	19,079	5,033	18,205	770	124,731	198,068	.....	361,290	20.5
Colombia	1,459	.....	.....	1,459	.....	.....	.....	1,718	3,177	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,177	0.2
Ecuador	2,160	.....	.....	2,160	.....	.....	2	1,153	3,315	489	.....	.....	.....	40	.....	.....	210	.....	619	1,358	.....	4,673	0.2
Peru	15,722	.....	.....	15,722	14,000	.....	.....	5,534	35,256	16,343	.....	.....	.....	5	287	.....	.....	370	11,556	28,561	.....	63,817	3.6
W. coast S. Am. [1]	7,632	.....	1,208	8,840	.....	.....	.....	1,895	10,735	1,458	.....	.....	.....	10	527	.....	.....	155	2,823	4,473	.....	15,208	0.9
Totals, S. Am.	93,839	52,905	11,474	158,218	14,000	.....	7,594	35,893	215,705	46,880	110	380	.....	1,222	19,893	5,033	18,415	1,295	139,232	232,460	.....	448,165	25.4
North America:																							
W. coast, U. S.	927,432	.....	64,402	991,834	.....	61,285	923	1,506	1,055,548	45,056	858	.....	800	12,193	769	.....	.....	.....	23,030	82,706	7,488	1,145,742	65.1
W. coast, Canada	8,102	9,500	.....	17,602	.....	.....	43	.....	17,645	47,406	5,057	.....	.....	16,681	.....	.....	.....	.....	5,413	74,557	3,905	96,107	5.5
W. coast, C. Am.	363	.....	.....	363	.....	.....	.....	711	1,074	241	.....	.....	.....	.....	.....	.....	.....	.....	297	538	.....	1,612	0.1
W. coast, N. Am.	8,949	9,500	.....	18,449	.....	.....	.....	.....	18,449	12,863	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,863	.....	31,312	1.8
Total, N. Am.	944,846	19,000	64,402	1,028,248	.....	61,285	966	2,217	1,092,716	105,566	5,915	.....	800	28,874	769	.....	.....	.....	28,740	170,664	11,393	1,274,773	72.5
Asia:																							
Far East [1]	9,357	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	13,857	0.7
Australasia:																							
Australia	5,204	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,204	0.3
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,757	.....	.....	.....	3,950	.....	.....	.....	.....	.....	10,707	.....	10,707	0.6
Australasia [1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,650	.....	.....	.....	.....	.....	.....	7,650	.....	7,650	0.5
Totals, Australasia	5,204	.....	.....	5,204	.....	.....	.....	.....	5,204	6,757	.....	.....	7,650	3,950	.....	.....	.....	.....	.....	18,357	.....	23,561	1.4
Grand totals	1,053,246	71,905	75,876	1,201,027	14,000	61,285	8,560	38,110	1,322,982	159,203	6,025	4,880	8,450	34,046	20,662	5,033	18,415	1,295	167,972	425,981	11,393	1,760,356	.....
Per cent of total cargo:																							
December, 1923	60.0	4.0	4.3	68.3	0.8	3.4	0.4	2.2	75.1	9.0	0.3	0.2	0.5	1.9	1.2	0.3	1.1	0.1	9.6	24.2	0.7	.....	100.0
December, 1922	53.1	3.5	6.6	63.2	.....	.....	2.2	1.3	66.7	18.0	0.4	.....	0.1	2.2	1.3	1.1	1.1	0.3	8.7	33.2	0.1	.....	100.0
December, 1921	43.8	5.9	4.9	54.6	.....	.....	2.2	0.9	57.7	16.9	0.9	0.1	0.9	2.0	1.4	1.5	2.4	3.2	11.0	40.3	0.6	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 12, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sydney M. Hauptman	5	15.15	6	6.20	6	13.52	6	14.52	American	Chas. R. McCormack S. S. Co.	401.0	53.2	21.0	Baltimore	Seattle	General	3,300	7,082	5,167
Nordhav	5	14.35	6	6.30	6	14.31	6	15.33	Norwegian	Gorrissen & Co	251.0	43.6	14.0	Newport News	Puget Sound	Ballast		2,489	1,553
Durham	6	0.45	6	7.03	6	15.10	6	16.07	British	Federal Steam Navigation Co	420.7	54 0	24 0	Sydney, C. B.	Sydney, N.S.W	General	4,489	7,138	5,296
Standard [1]	6	3.30	6	7.35	6	15.40	6	16.35	American	Standard Oil Co	523.0	68.0	20.0	New York	Los Angeles	Ballast		12,171	8,782
David McKelvy [1]	6	6.52	6	7.40	6	15.56	6	16.35	American	Tidewater Oil Co	430.0	59.2	20.0	New York	Los Angeles	Ballast		7,629	5,393
Riol	6	6.28	6	8.45	6	16.31	6	17.40	German	Roland Line	369.7	59.8	23.0	Hamburg	Corral	General	3,896	4,899	3,701
Pear Branch	6	8.33	6	11.15	6	17.50	7	8.09	British	F. & W. Ritson	398.0	53.9	20.7	Liverpool	Valparaiso	General	3,245	5,760	3,866
Santa Barbara	6	2.00	6	11.38	6	18.13	6	19.10	American	Grace Line	404.6	53.0	19.8	Baltimore	San Francisco	General	3,491	6,789	4,746
K. I. Luckenbach	6	11.50	6	12.15	6	19.29	6	20.40	American	Luckenbach Line	446.0	56.0	30.6	New Orleans	Seattle	General	9,000	8,552	6,236
Mystic	6	12.18	6	12.30	6	19.47	7	3.32	American	United American Lines	400.7	54.2	23.6	New York	Los Angeles	General	5,485	6,623	4,625
Henry S. Grove	6	16.30	7	6.25	7	14.06	7	19.55	American	Argonaut Steamship Line	429.0	54.0	28.3	Baltimore	Seattle	General, steel	8,449	6,755	4,688
Steelore [1]	7	1.30	7	7.17	7	16.50	8	6.04	American	Ore Steamship Co	550.3	72.2	23.0	Baltimore	Cruz Grande	Ballast		15,551	4,297
Frederic R. Kellogg [1]	7	6.27	7	8.25	7	17.41	7	18.43	American	Pan-American Petroleum Co	425.8	57.0	22.0	New York	San Pedro	Ballast		7,178	4,963
Antonio	7	8.40	7	12.00	7	19.58	7	20.44	British	Langdon Rees	400.3	52.0	17.0	Cardiff	Vancouver	Ballast		5,893	4,098
Koranton	7	10.14	7	11.08	7	18.19	7	19.15	British	Chapin, Ltd	410.7	55.0	17.0	Marseilles	San Francisco	Ballast		6,811	4,810
Afghanistan	7	9.10	7	12.15	7	20.46	7	21.49	British	Hindustan Steamship Co	384.3	53.0	14.6	Marseilles	Vancouver	Ballast		5,662	4,290
Salatiga	7	16.20	8	6.15	8	13.58	8	19.20	Dutch	Rotterdam Lloyds	434.3	57.7	17.9	Rotterdam	San Francisco	Ballast		8,145	6,074
Negada	7	20.45	8	7.15	8	15.01	8	16.06	German	Kosmos Line	411.0	50.7	25.6	Hamburg	Corral	General	3,647	6,402	4,463
Voreda	8	13.26	8	13.30	8	21.45	8	22.40	British	Gow Harrison	472.5	59.2	18.0	Cardiff	Grays Harbor	Ballast		8,799	6,307
I. C. White [1]	5	10.27	9	6.00	9	14.09	9	15.17	American	Pan-American Petroleum Co	429.3	59 2	17.3	Tampico	San Pedro	Ballast		7,925	5,840
Atlantic Maru	8	16.54	9	6.25	9	14.48	9	15.55	Japanese	Kawasaki Steamship Co	385.0	51.0	15.0	Baltimore	Arica	Ballast		6,251	4,700
Alkmaar	8	15.50	9	7.10	9	15.49	10	0.20	Dutch	Royal Netherlands W. I. Mail	440.0	62.6	22.6	Hamburg	Corral	General	8,993	9,505	6,644
Wabash	9	0.25	9	7.25	9	16.49	9	17.57	American	Nawsco Line	381.0	49.9	22.0	Boston	Seattle	General, steel	2,956	5,825	4,152
T. J. Williams [1]	9	3.55	9	8.30	9	17.03	9	18.04	American	Standard Oil Co	465.0	60.8	20.0	New York	San Pedro	Ballast		8,585	6,087
Ardmore [1]	9	4.15	9	8.30	9	17.35	9	18.30	American	Standard Oil Co	449.5	59.6	20.6	New York	San Pedro	Ballast		8,612	6,457
Edward Luckenbach	9	5.25	9	9.30	9	18.14	9	19.25	American	Luckenbach Line	436.0	57.0	22.6	Boston	Seattle	General	4,600	8,543	6,427
Yarborough	8	23.20	9	9.50	9	19.08	9	20.24	British	W. R. Smith & Sons	321.5	47.1	13.0	Newcastle	San Francisco	Ballast		3,325	2,375
Colonial	9	7.30	9	10.55	9	19.32	9	20.27	British	T. & J. Harrison	400.0	48.6	21.5	Liverpool	Vancouver	General	2,927	5,461	3,774
Nora [1]	9	10.10	9	11.10	9	20.14	9	21.14	American	Grace Line	485.0	62.7	20.0	New York	San Pedro	Ballast		9,918	7,363
Curlew [2]			9	7.55	9	15.47	10	2.06	American	U. S. Navy					Cristobal	Balboa	Ballast		
E. T. Bedford [1]	9	22.40	10	6.30	10	14.11	10	15.12	American	Standard Oil Co	499.2	68.1	18.6	New York	San Pedro	Ballast		11,009	7,967
Nordbo [3]	10	1.15	10	8.03	10	15.20	10	16.15	Danish	Norden Steamship Co	380.0	53.9	13.6	Philadelphia	San Francisco	Ballast			
Agwismith [1]	10	10.15	10	10.50	10	18.08	10	19 06	American	Atl. Gulf & W. I. S. S. Co.	499.9	68.1	20.0	New York	San Pedro	Ballast		10,853	7,736

[1] Tanker. [2] Tug. [3] Motor ship.

Alvarado	8	17.28	11	6.29	11	14.00	11	17.07	British	Pacific Steam Navigation Co	303.0	43.0	15.6	New York	Guayaquil	General	570	2,844	1,748
Edenton	10	15.10	11	6 29	11	14.48	11	15.52	American	Tampa Interocean S.S.Co.(S.B.)	409.6	54.2	28.6	Mobile	Shanghai	General	7,557	7,478	5,906
La Brea [1]	10	15.19	11	7.30	11	14.58	11	18.33	American	Union Oil Co	435.0	56.0	20.0	Philadelphia	Los Angeles	Ballast		7,150	4,765
Japan Arrow [1]	10	17.15	11	7.19	11	15.52	11	17.10	American	Standard Transportation Co	468.3	62.7	20.0	New York	San Pedro	Ballast		10,084	7,426
Ohioan	11	1.05	11	8.33	11	16.39	11	20.06	American	American-Hawaiian Line	407.7	53.7	18.10	Boston	Portland	General	2,336	7,112	4,895
Shrevepert [1]	11	5.25	11	8.25	11	16.46	11	17.57	American	Walker & Daly (S. B.)	435.0	56.0	20.0	Fall River	Los Angeles	Ballast		7,411	5,103
Agwimex [1]	11	7.45	11	9.40	11	17.36	11	18 33	American	Atl. Gulf. & W. I. S. S. Co	480.5	66 0	21.0	Baltimore	San Pedro	Ballast		9,391	6,396
Swiftwind [1]	11	11.33	11	11.40	11	18.29	12	0.49	American	Swiftsure Oil Transp. Co	465.0	62.0	22.0	New York	San Pedro	Ballast		8,473	5,997
Carnia	11	7.50	11	12.10	11	19.10	11	20.30	Italian	Free Navigation Co	494.2	54.0	19.0	Cardiff	Vancouver	Ballast			
Ohio [4]	8	21.25	11	11.52	..				American	E. W. Scripps	161.0	26.0	11.3	San Juan	Callao	Ballast		530	240
Independence	11	12.30	11	12.45	11	20.41	12	7.51	American	Barber Lines (S. B.)	440.0	56.0	28.0	New York	Yokohama	General	10,207	8,299	6,063
F. H. Hillman [1]	11	13.25	11	13.35	11	21.16	11	22.29	American	Standard Oil Co	509.0	68.2	21.0	Providence	Los Angeles	Ballast		11,225	7,913
Putnam [5]			11		11	13.18			American	U. S. Army				Cristobal	Pedro Miguel	Ballast			
Venezuela	11	7.10	12	6.15	12	13.52	12	23.19	American	Pacific Mail Steamship Co	389.0	48.7	23.0	New York	San Francisco	General	2,700	6,033	4,353
Suwarinco	11	15.20	12	6.35	12	15.01	12	16.09	American	Transmarine Corporation	324.0	46 2	22.1	Newark	Tacoma	General	3,600	3,984	2,612
Cape Henlopen [1]	11	23.25	12	7.19	12	15.26	12	16.29	American	Cape Steamship Co	434.8	56.2	20.6	New York	San Pedro	Ballast		7,425	5,202
Republic	12	4.23	12	7.50	12	15.56	12	17.01	American	Chile Steamship Co	345.1	49.1	25.0	New York	Tocopilla	General	3,855	4,393	3,006
Planorbis [1]	12	6.05	12	8.35	12	16.35	12	20.58	British	Anglo-Saxon Petroleum Co	411.0	53.0	20.6	Cardiff	San Pedro	Ballast			
Orita	11	16.37	12	9.50	12	17.14	12	18.20	British	Pacific Steam Navigation Co	485.4	58.2	21.6	Liverpool	Valparaiso	General	3,859	9,936	6,561
Oklahoma	11	8.40	12	10.55	12	18.48	12	20.00	British	Harlaam Steamship Co	400.0	52.0	19.3	Havre	Vancouver	(3)	2.886	6,900	4,477
Agwimars [1]	12	7.00	12	12.05	12	19.32	12	20.30	American	Atl. Gulf & W. I. S. S. Co	429.0	59.0	21.0	Fall River	San Pedro	Ballast			

[1] Tanker. [4] Yacht. [5] Launch. [6] Sands, rags, pipes, glass, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

William Rockefeller [1]	5	14.45	6	6.19	6	15 45	6	15.45	American	Standard Oil Co	554.9	75.3	31.0	San Pedro	New York	Oil	19,426	11,785	10,313
Irish Monarch	5	16.30	6	6.54	6	17.20	6	18.12	British	Raeburn & Vereal	385.4	58.7	23.10	Caleta Colosa	New Orleans	Nitrate	6,659	1,692	3,397
Osiris	5	15.20	6	7.16	6	17.00	6	17.09	German	Kosmos Line	376.1	51.7	25.2	Vancouver	Hamburg	General	6,300	5,788	4,023
Lautaro [7]	6	18.15	6	7.56	6	18.28	6	23.05	British	Pacific Steam Navigation Co	399.1	52.2	28.8	Valparaiso	London	General	8,120	6,759	4,840
Thomas H. Wheeler [1]	5	21.28	6	8.13	6	18.27	6	18.27	American	Standard Oil Co	425.0	57.2	27.0	San Pedro	New York	Crude oil	9,329	7,181	4,769
India Maru	6	7.40	6	8.40	6	19.15	6	21.45	Japanese	Kawasaki Dock Yard Co	385.1	51.0	25.8	Kobe	United King	Wheat	7,272	5,928	4,381
Tilthorn	6	8.00	6	9.43	6	19.50	6	20.45	Norwegian	Jacob R. Olsen	420.2	53.9	28.6	Tocopilla	Charleston	Nitrate of soda	10,000	6,591	4,739
Virginian	6	15.15	7	6.22	7	13.26	7	14.50	American	American-Hawaiian Line	491.6	58.2	24.0	San Francisco	Philadelphia	General	6,000	10,491	7,516
Kenilworth	6	18.00	7	6.50	7	14.52	7	18.25	British	R. S. Dalgliesh	429.6	55.0	27.0	Iquique	Savannah	Nitrate	8,490	7,201	5,065
Chattanooga City	6	20.15	7	7.14	7	16.05	7	16.05	American	Isthmian Steamship Lines	424.2	56.2	24.0	Seattle	Boston	(8)	6,415	7,611	5,459
Santa Tecla	6	23.00	7	8.12	7	17.25	7	23.15	American	Grace Line	298.6	40.0	16.0	Salaverry	New York	General	1,209	2,832	1,803
Florence Luckenbach	6	21.30	7	8.02	7	17.11	7	17.12	American	Luckenbach Line	401.1	52.2	22.2	Portland	Mobile	Lumber, general	4,267	6,002	4,621
Panama [7]	7	3.00	7	8.35	7	18.18	7	19.38	Danish	East Asiatic Co	410.0	55 0	28.9	Vancouver	Copenhagen	General	9,151	7,027	5,341
Cacique	7	4.00	7	9.09	7	19.05	7	23.45	American	Pacific Mail Steamship Co	394.2	52.3	23.3	San Francisco	Baltimore	General	5,100	6,652	4,913
Bethelridge [1]	7	6.00	7	10.32	7	19.35	7	19.35	American	Walker & Daly (S. B.)	431.0	59.2	25.7	Los Angeles	New York	Crude oil	9,885	7,819	5,076
Mantaro	7	11.30	7	13.26	7	21.50	10	8.09	Peruvian	Peruvian Line	367.3	46.0	20.7	Callao	Cristobal	General	2,958	4,838	2,959
Gen. G. W. Getty			7	6.40	7	8.36			American	U. S. Army				Balboa	Paraiso, return				

[1] Tanker. [7] Motor ship. [8] Lumber, canned goods, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Luisa	7	12.25	7	14.04	7	22.45	8	1.25	American	Grace Line	360.2	51.6	25.8	Talcahuano	New York	General	4,081	5,694	3,975
Argosy	7	7.00	8	6.14	8	15.10	8	15.10	American	Wessel, Duval & Co	390.0	54.2	25.8	Iquique	Wilmington	Nitrate of soda	7,350	6,203	4,280
Canadian Skirmisher	7	13.50	8	6.59	8	15.46	8	15.46	British	Canadian Government	400.0	52.4	24.8	Vancouver	Glasgow	Lumber, wheat	5,900	6,174	4,323
J. C. Donnell [1]	7	17.15	8	7.16	8	17.10	8	17.10	American	Atlantic Refining Co	500.0	60.2	28.5	Los Angeles	Philadelphia	([10])	15,590	10,435	7,900
St. Louis	7	23.00	8	7.48	8	17.45	9	6.27	French	Cie Generale Transatlantique	397.9	50.3	26.0	Talcahuano	Havre	General	6,778	5,857	4,166
John D. Rockefeller [1]	8	6.00	8	8.28	8	18.12	8	18.12	American	Standard Oil Co. of N. J.	458.3	60.0	26.0	Los Angeles	New York	Crude oil	11,400	8,633	6,314
Spain Maru	7	23.00	8	9.24	8	18.46	8	18.46	Japanese	Kisen Kabushiki Kaisha	385.0	51.0	25.0	Vancouver	Europe	Wheat	7,380	5,924	4,392
Willhilo	8	7.10	8	9.46	8	19.25	8	19.25	American	Williams Steamship Co	434.3	57.7	25.6	Seattle	New York	General, lumber	8,800	7,983	5,882
Jamaica	8	9.45	8	11.29	8	20.01			British	Pacific Steam Navigation Co	229.0	33.1	12.8	Buenaventura	Cristobal	General	614	1,187	622
Patrick Henry [1]	7	19.25	8	14.36	8	21.37	8	21.37	American	Tampa Interocean S. S. Co. S. B.	439.6	60.2	19.8	Taku Bar	New Orleans	([11])	4,587	8,987	6,612
Hagood [1]	8	13.40	8	14.41	8	24.00	8	23.59	American	Cities Service Corporation	435.6	56.2	28.0	San Pedro	Boston	Crude oil	10,000	7,426	5,094
Aroostock	8	13.45	8	14.54	8	22.34			American	U. S. Navy	395.0	52.0	17.5	San Diego	Cristobal				
Delecto	8	18.50	9	6.19	9	15.00	9	15.00	American	Williams Line	341.0	48.2	21.4	Seattle	New York	Lumber, general	4,750	4,419	3,230
Sutorpeo	8	18.00	9	6.53	9	15.20	9	20.00	American	Transmarine Lines	324.0	46.2	24.0	Seattle	Newark, N. J.	([12])	3,572	3,981	2,612
Jason [9]	8	18.20	9	7.04	9	16.05			American	U. S. Navy	536.0	65.0	23.8	San Diego	Cristobal	Coal for Navy	4,541		
Albert Jeffress	9	2.30	9	7.49	9	16.35	9	16.35	American	Garland Line	384.6	51.2	25.3	San Francisco	Baltimore	Lumber, copper	5,790	6,347	4,453
H. M. Storey [1]	9	6.00	9	8.07	9	17.23	9	17.23	American	Standard Oil Co. of California	500.0	68.2	29.2	Los Angeles	Baltimore	Crude oil	16,200	11,224	7,849
Elisha Walker [1]	9	6.45	9	8.44	9	17.50	9	17.50	American	Pan-Amer. Pet. & Transp. Co	429.3	59.2	27.6	San Pedro	New Orleans	Crude oil	11,200	7,978	5,971
District of Columbia [1]	9	8.50	9	9.45	9	19.05	9	23.20	American	Walker & Daly (S. B.)	431.0	59.2	25.6	San Pedro	New York	Crude oil	9,500	8,097	5,431
Trevider	9	11.00	9	12.26	9	20.24	10	6.10	British	Hains Steamship Co	369.9	51.1	24.6	Mejillones	Wilmington	Nitrates	6,950	5,200	3,967
Otavi	9	11.15	9	13.06	9	22.05			German	Aug. Bolten, Hamburg	394.1	47.6	23.0	Mejillones	Norfolk	Nitrate	5,220	5,852	4,082
Melville Dollar	9	13.56	9	14.42	9	23.10	10	3.35	American	Robert Dollar	429.0	55.2	24.0	Seattle	Portland, Me	Lumber, general	5,700	7,581	5,519
Marore	9	7.00	9	15.50	10	15.00	10	17.07	American	Ore Steamship Co	550.3	72.2	34.0	Cruz Grande	Baltimore	Iron ore	19,600	15,551	4,297
Kroonland	9	18.45	10	6.16	10	14.40	10	14.49	American	Panama-Pacific Line	560.0	60.2	26.0	San Francisco	New York	Fruit, general	3,728	13,514	9,127
Brielle	9	14.50	10	6.44	10	15.35	11	1.12	Dutch	Royal West India Mail	402.5	58.2	27.0	Mollendo	Europe	General	3,492	7,322	5,254
Francis E. Powell [1]	9	19.30	10	7.18	10	15.47	10	15.47	American	Atlantic Refining Co	431.0	59.2	26.6	San Pedro	Philadelphia	Gasoline	10,000	7,860	5,101
Ocean Prince	10	1.30	10	8.11	10	17.30	10	19.05	British	Furness, Withy & Co	410.3	52.3	24.0	Vancouver	Newport News	Wheat in bulk	7,330	5,926	4,252
Kentuckian	10	2.00	10	8.27	10	16.20	10	16.20	American	American-Hawaiian Line	414.5	53.7	21.0	Los Angeles	New York	General	3,889	7,049	4,941
Atholl	10	3.39	10	9.04	10	17.44	11	4.49	British	Australind Steam Shipping Co	385.5	48.7	19.0	Adelaide	Boston	Wool, general	2,366	4,830	3,556
Acajutla	10	6.30	10	9.20	10	17.53			British	Pacific Steam Navigation Co	215.7	33.5	16.6	Champerico	Cristobal	General	997	1,273	706
Stad Delft	10	8.00	10	10.08	10	19.35	10	21.28	Dutch	Halcyon Line	362.3	51.4	25.6	Tocopilla	Fayal [13]	Nitrates	6,632	5,096	3,444
Strombus [1]	10	12.15	10	13.20	10	21.37	11	10.10	British	Anglo-Saxon Petroleum Co	410.0	52.1	27.0	San Pedro	Hamburg	Crude oil	7,830	6,495	4,741
Antietam [1]	10	13.00	10	14.05	10	22.30	10	22.30	American	Chas. Kury & Co	435.6	56.2	26.6	San Pedro	Baton Rouge	Crude oil	10,000	7,426	5,094
Notre Dame de Fourviere	10	15 20	11	6.14	11	16.05	11	16.05	French	Compagne de Nav. Mixte	427.3	58.3	23.6	Los Angeles	New York	Copra, hemp	6,145	8,043	5,454

[1] Tanker. [9] U. S. collier. [10] Crude oil in bulk. [11] Rice, coconut oil, and general. [12] Lumber and canned fruit. [13] For orders.

Scottish Castle [1]	10	14.30	11	6.53	11	17.25	11	17.25	British	Tankers, Limited	440.8	57.0	24.6	San Pedro	London	Gasoline	9,362	7,532	5,162
Ansgir	10	19.05	11	7.30	11	18.20	11	19.15	German	Roland Line	408.4	54.1	25.0	Corosal	Hamburg	General	7,820	6,542	4,532
Denmark Maru	11	6.30	11	8.09	11	19.45	11	21.10	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.7	Vancouver	United King.	Wheat	7,366	5,926	4,398
Ulysses	5	14.08	11	8.25	11	18.30	12	6.15	American	Panama Railroad Steamship Line	514.0	65.0	19.9	Cristobal	Cristobal	Ballast			
D. G. Scofield [1]	11	13.00	11	13.39	11	21.50	11	21.50	American	Standard Oil Co. of California	439.5	58.0	29.8	Los Angeles	New York	Crude oil	11,400	8,698	6,013
May 1 [14]			11		12	14.10			Panaman	Manuel Camayo	28.0			Balboa	Cristobal				
Putman [14]			11	13.18	11	19.15			American	U. S. Army				Pedro Miguel	Cristobal				
Ecuador	11	2.56	12	6.15	12	14.10	13	18.10	American	Pacific Mail Steamship Co	380.6	48.7	24.7	San Francisco	New York	General	2,850	5,926	4,178
J. L. Luckenbach	11	14.30	12	6.44	12	15.10	12	15.10	American	Luckenbach Lines	448.9	60.2	27.0	Portland	Boston	General	5,500	9,294	6,861
Steel Scientist	11	18.45	12	6.57	12	15.40	12	15.40	American	Isthmian Lines	424.2	56.2	26.0	Vancouver	London	General	8,189	7,611	5,454
Orleans	12	6.00	12	7.40	12	16.20	12	16.20	American	Oriental Navigation Co	395.5	55.0	24.6	Vancouver	Charleston	Lumber, general	4,000	7,330	5,233
Dorset	12	9.10	12	11.13	12	20.05	13	6.05	British	Federal Steam Navigation Co	460.0	58.2	26.0	Auckland	London	General	6,016	9,188	6,581
Chester Sun [1]	12	12.00	12	12.49	12	20.45	12	20.45	American	Sun Oil Co	429.3	59.2	27.0	San Pedro	Chester	Crude oil	11,406	7,684	5,249
Gen. G. W. Getty			12	11.18	12	13.43			American	U. S. Army				Balboa	Pedro Miguel				
Fredensbro	12	14.06	12	15.31	13	0.10	13	1.20	Danish	N. O. & S. A. S. S. Co	302.0	44.2	21.6	Talcahuano	New York	Nitrate of soda	3,955	2,997	2,113

[14] Launch.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 6	Cartago	United Fruit Co	New Orleans via Habana.	January 6	Toloa	United Fruit Co	New York via Habana.
January 6	Toloa	United Fruit Co	Port Limon.	January 7	St. Mihiel [17]	U. S. Army	New York.
January 8	Calamares	United Fruit Co	New York via Habana.	January 7	Cartago	United Fruit Co	Bocas del Toro.
January 9	San Blas	United Fruit Co	Boston via Habana.	January 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
January 9	Metapan	United Fruit Co	New York via Kingston.	January 9	Calamares	United Fruit Co	Port Limon.
January 9	Santa Marta	United Fruit Co	Colombian ports.	January 9	San Blas	United Fruit Co	Boston via Port Limon.
January 10	Cartago	United Fruit Co	Bocas del Toro.	January 10	Metapan	United Fruit Co	Colombian ports.
January 10	Linda S [15]	Surgeon Brothers	Colon.	January 10	Santa Marta	United Fruit Co	New York via Kingston.
January 10	Arabia [15]	Panama Plantation Syndicate	Colon.	January 10	Cartago	United Fruit Co	New Orleans.
January 11	Bayano	Elders & Fyffes, Ltd	Port Limon.	January 11	Bayano	Elders & Fyffes, Ltd	Kingston.
January 12	Seattle [16]	U. S. Navy	New York.				

[15] Motor schooner. [16] U. S. cruiser. [17] Transport.

PORT OF BALBOA.

January 9	Regulus	A. O. Lindvig	Iquique.	January 10	Regulus	A. O. Lindvig	San Francisco.

* Other than ships passing through the Canal.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended January 14:

Steamships *Cristobal*, calk deck; redrive rivets in rail stanchions; manufacture two chain grabs and two chain pawls, also install latter; straighten bridge angle iron; continue scaling and cement washing No. 4 inner bottom tanks, etc.; *Jamaica*, bore out cylinder and valve chamber; manufacture and fit new piston and valve, manufacture one pair crank pin brasses and 4 piston rings for electric engine; fit patch on ship's side; repair cargo scales, davit No. 2 lifeboat, blocks, and winches; manufacture new guards for gear wheels on forward winch, etc.; *Otavi*, repair condenser, circulating pump, stop valve for feed pump, winch steam pipe, and staybolt nuts; manufacture new valve plate for Weir pump, etc.; *Acajutla*, renew H. P. piston rod, skim out gland and neck bushes and remetal and machine one pair of crosshead brasses for main engine; repair No. 4 port tank top, No. 1 winch exhaust pipe, tank manhole studs and gaskets, rigging screws, steam pipe casing on fore deck, and door handle of specie room; manufacture two iron hatch battens, 12 bolts and three hatch tarpaulins, etc.; schooner *Arabia*, dry dock and clean bottom; repair copper sheathing where damaged; calk hull above water line; repair plank on port side, main mast head, and main engine fuel pump glands, etc.

Minor repairs—Steamships *Mantaro*, *Stad Delft*, *San Juan*, *Ebro*, and *Chuky*, U. S. S. *Jason*, and U. S. S. *R–24*, schooner *Linda S.*, and launch *Coco Solo*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 12, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Santa Barbara	Pacific Mail Steamship Co	January 6	January 6	170½	37
Toloa	United Fruit Co	January 6	January 6	7	110
Lautaro	Pacific Steam Navigation Co	January 6	January 6	10	171
Cartago	United Fruit Co	January 6	January 7	463	65½
Mantaro	Peruvian Line	January 7	January 10	2,958	[2]
Santa Tecla	Pacific Mail Steamship Co	January 7	January 7	111	135
Calamares	United Fruit Co	January 8	January 9	302	46
Alkmaar	Royal Netherlands W. I. Mail	January 8	January 9	20	[2]
Saint Louis	Cie Generale Transatlantique	January 8	January 9	174	40
Jamaica	Pacific Steam Navigation Co	January 8	.....	614	.....
Alvarado	Pacific Steam Navigation Co	January 8	January 11	116	110
Panama	Panama Railroad Steamship Line	.....	January 9	.....	2,565
San Blas	United Fruit Co	January 9	January 9	28	11
Santa Marta	United Fruit Co	January 9	January 10	2	57
Metapan	United Fruit Co	January 9	January 10	136	39
Cartago	United Fruit Co	January 10	January 10	1¾	30
Acajutla	Pacific Steam Navigation Co	January 10	.....	997	.....
Brielle	Royal Netherlands W. I. Mail	January 10	January 10	[1]	178
Orita	Pacific Steam Navigation Co	January 11	January 12	124	234
Bayano	United Fruit Co	January 11	January 12	[1]	½
Oklahoma	Cie Generale Transatlantique	January 11	January 12	11	500
Venezuela	Pacific Mail Steamship Co	January 11	January 12	143	206
Ecuador	Pacific Mail Steamship Co	January 12	.....	866	.....

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 12, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Patrick Henry	Tampa Interocean Steamship Co	January 7	January 8	382	.....
Ecuador	Pacific Mail Steamship Co	January 11	January 12	172	.....
Alvarado	Pacific Steam Navigation Co	January 11	January 11	10	.....
Venezuela	Pacific Mail Steamship Co	January 12	January 12	2	4
San Juan	Pacific Mail Steamship Co	January 12	.....	34	.....

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Conference of Maritime Quarantine Authorities of the West Coast of South America.

The President of the Republic of Panama has called a conference to meet in Panama, R. P., on February 25, 26, 27, 28, and 29, for the purpose of considering the international standardization of maritime quarantine on the west coast of South America and the prevention of international spread of communicable disease in that littoral. Two official delegates are expected from each of the following west-coast countries: Chile, Peru, and Ecuador, and from Panama and the United States. The sanitary office of the Pan-American Union will also send delegates.

The conference, which is under the immediate direction of Col. Juan Antonio Jimenez, Secretary of Public Works, will hold formal discussions each morning, at which will be taken up questions bearing upon maritime quarantine regulations; the methods, periodicity and certification of ship fumigation; uniform quarantine declarations and uniform bills of health. Afternoons will be devoted to practical demonstrations of public health and hospital methods. Clinics will be held at Santo Tomas, Ancon, Corozal, and Palo Seco hospitals. There will also be demonstrations in municipal hygiene, garbage collection and destruction, public markets and refrigerating plants at Panama and Colon, R. P. The conference will inspect the antimalarial work which is being done by the Health Department of The Panama Canal and will make a study of ship fumigation with cyanogen chloride. The water works purification plant will be inspected and there will be a demonstration in public health laboratory methods at the laboratory of the Health Department of The Panama Canal. The Instituto Nacional and the Normal School will give an exposition of methods of teaching public health to children, and the results in improved sanitation coincident upon the installation of the national road system of the Panama Government will be shown. The Medical Association of the Isthmian Canal Zone will hold a special meeting at the Santo Tomas Hospital for the conference. There will be a visit to the site of the Gorgas Memorial Institute and Old Panama.

The secretary general of the conference is Surgeon William Colby Rucker, U. S. P. H. S., Chief Quarantine Officer of The Panama Canal. Physicians, surgeons, and public health workers visiting the Isthmus of Panama at the time of the conference will be welcomed.

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port au Prince.	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince.	Arrive New York.
General W. C. Gorgas	January 15	January 21	January 24	January 29	February 1	February 6.
Panama	January 25	January 30	February 2	February 9	February 12	February 16.
Cristobal [1]	February 5	February 10	February 13	February 19	February 22	February 26.
General W. C. Gorgas	February 15	February 21	February 24	February 29	March 3	March 8.
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Cristobal [1]	April 5	April 10	April 13	April 19	April 22	April 26.
General W. C. Gorgas	April 15	April 21	April 24	April 29	May 2	May 7.
Panama	April 25	April 30	May 3	May 9	May 12	May 16.

[1] Sails at 3 p. m., from Pier 65, North River, foot of West 25th Street.

Transit of the Pacific Fleet.

The Pacific Fleet of the United States Navy arrived at Balboa on the morning of January 16, and began transit through the Canal immediately, in accordance with the prearranged plans.

The preliminary arrangements for the transit of the fleet assumed that the fleet would consist of 9 battleships, 32 destroyers, 10 submarines, 1 light cruiser, and 14 auxiliary craft, with the probability of 1 additional battleship and 6 additional auxiliary vessels.

It was proposed to pass these vessels through the Canal without interfering with commercial traffic and working as nearly as possible on the regular schedules. Destroyers were to be locked through in pairs, with two pairs in each lockage, 4 locomotives and one pilot for each pair. Submarines, mine sweepers, and tugs were to be locked through with other ships as opportunity offered, without locomotives or pilots.

With 14 schedules each way, and assuming 7 northbound commercial ships each day, it was expected that 7 schedules each day would be available for the fleet, and it was estimated that 4 days and possibly a fifth would be required to pass the entire fleet through the Canal.

Sale of the Steamer Colon.

Negotiations have been concluded for the sale of the Panama Canal's steamship *Colon* to the Alaska Steamship Co., subject to final acceptance by the purchaser upon completion of all repairs and after a successful trial trip.

Since, March, 1923, the *Colon* has been at the Balboa shops, where she had a complete overhaul, including the installation of new boilers.

The *Colon* was built in 1899 at Philadelphia for the Ward Line, and was known then as the *Mexico*. She was bought by the Isthmian Canal Commission in 1905, and since that year has been operated by the Panama Railroad Co., between New York and the Isthmus. The new owners propose to use her on the run between Seattle and Alaskan ports.

The Panama Railroad Co. will be able to maintain its existing schedules with the steamers *Panama*, *Cristobal*, and *General W. C. Gorgas*, although there is a possibility that the *Ancon*, which is now laid up in Gatun Lake, may be reconditioned for passenger service.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.40 to $1.65 per barrel at Cristobal, and $1.40 to $1.55 at Balboa; Diesel oil, Balboa only, $1.65 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama"; in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., January 23, 1924. No. 24.

Reduction in Price of Coal.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 22, 1924.

MEMORANDUM FOR STEAMSHIP AGENTS:

Commencing February 1, 1924, the price of bunker coal will be reduced to $10 per gross ton of 2,240 pounds at the Cristobal coaling plant, and to $13 per gross ton at the Balboa plant.

This reduced price leaves no margin over actual cost and its retention will be partially dependent upon the prices of future coal purchased in the United States, but to a much larger extent upon the volume of business done. The Panama Canal administration maintains expensive plants for the purpose of coaling ships with a minimum of delay, which service requires the continuous employment of a skilled personnel, the cost of which is considerable.

If shipping gives these plants sufficient business, the above reduction in the price of coal can be maintained and, with a large business, further reductions can and will be made.

Should the movement of coal remain at its present low level or be further diminished, higher prices will have to be charged as it is not sound business to dispose of this commodity at a loss.

Many requests have been received in recent months for a reduction in the price of coal. The conditions which can bring this about and maintain it are clearly set forth above. The quality of coal carried here is strictly first-class, and it is entirely in the hands of shipping interests to determine, by the quantity of coal purchased, whether satisfactory prices can be quoted.

It is suggested that you bring this matter forcibly to the attention of your principals.

M. L. WALKER,
Acting Governor.

New Records for One Day's Traffic Through the Panama Canal.

On January 14, 1924, 26 commercial vessels were passed through the Canal, establishing a new high record for number of commercial transits in one day. These vessels carried 163,202 tons of cargo which is also a new high record for tons of cargo through the Canal in one day. The Panama Canal net tonnage of these vessels was 133,621 tons, and the tolls collected aggregated $127,697.63, neither of which figures quite reaches the totals of 145,382, Panama Canal net tonnage, and $136,604.77 tolls collected, established on May 25, 1923.

Thirteen of the 26 commercial vessels were northbound and 13 southbound. The 13 northbound vessels carried 133,757 tons of cargo as against the previous high record for cargo in one direction in one day of 110,329 tons of cargo carried northbound on November 14, 1923. The 13 northbound vessels paid $77,081.25 tolls, thus exceeding the previous high record of $68,814.17, paid by 15 vessels southbound on May 25, 1923.

Of the 13 southbound vessels on January 14, 1924, one was a tug on which no tolls were paid; this was on account of her measurement under United States rules indicating zero net tonnage.

ERROR SEE CORRECTION PAGE 370.

In addition to the 26 commercial transits noted above, a United States army transport made the transit southbound, carrying 2,900 tons of cargo.

A comparison with the previous high record shows the following:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Cargo tonnage.
May 25, 1923	25	145,382	$136,604.77	153,075
January 14, 1924	26	133,621	127,697.63	163,202

The following shows the detail of the northbound and southbound traffic of January 14, 1924, by directions:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Cargo tonnage.
Pacific to Atlantic	13	73,630	$77,081.25	133,757
Atlantic to Pacific	13	59,991	50,616.38	29,445
Totals	26	133,621	127,697.63	163,202

Panama Canal Traffic During Calendar Year 1923, by Nationality of Vessels.

Commercial traffic through the Panama Canal during the calendar year 1923, showed an increase over the preceding calendar year of 68.07 per cent in number of commercial transits, 90.38 per cent in net tonnage, Panama Canal measurement, 82.65 per cent in tolls collected, and 83.51 per cent in tons of cargo carried.

Vessels of United States registry using the Canal in 1923 exceeded those of all other nationalities combined, with vessels of British, Norwegian, Japanese, German, and Dutch registry following in the order named. Vessels of these 6 nationalities made up over 90 per cent of the total Canal traffic during the year.

The following statement shows the commercial traffic through the Canal during the year, segregated according to the registry of the vessels:

Nationality.	Number of ships.	TONNAGE.				Tolls.	Tonnage.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
British	1,148	4,430,997	5,456,887	7,029,847	4,388,518	$5,256,391.97	5,364,916
Chilean	66	150,945	227,847	312,323	176,854	188,660.10	96,633
Colombian	36	10,911	10,973	25,391	18,221	12,806.83	12,234
Danish	66	190,883	241,728	282,505	177,976	226,549.06	314,205
Dutch	117	446,912	595,060	707,609	440,082	525,267.25	588,718
Ecuadorian	1	36	36	112	36	27.00	.....
Finnish	3	4,782	4,798	5,278	4,614	5,757.60	7,500
French	70	278,719	327,872	416,101	257,544	345,234.94	314,949
German	124	372,859	508,703	594,278	363,137	464,982.68	523,100
Greek	4	12,556	16,188	20,704	12,920	13,675.18	16,295
Italian	39	128,661	152,083	207,152	123,008	157,814.28	93,734
Japanese	158	648,951	753,440	968,202	638,323	778,540.41	857,190
Jugo-Slavic	4	10,618	15,400	18,570	11,888	13,272.50	26,213
Mexican	1	163	192	.....	.....	138.24	.....
Norwegian	160	533,391	652,175	808,285	515,586	591,404.84	646,742
Panaman	29	31,814	40,854	55,821	32,845	38,668.24	27,530
Peruvian	75	116,693	202,803	312,452	166,352	144,585.78	112,412
Spanish	34	94,768	118,454	160,626	99,784	106,447.74	36,874
Swedish	34	91,073	141,726	149,957	110,904	114,076.21	196,554
United States	2,868	12,423,896	15,270,218	19,582,882	12,393,338	13,982,537.33	15,924,746
Totals, 1923	5,037	19,979,628	24,737,437	31,658,095	19,931,570	22,966,838.18	25,160,545
Totals, 1922	2,997	10,375,771	12,992,573	16,315,147	10,310,113	12,573,407.77	13,710,556

As related to the total traffic and as compared with the year 1922, the classification by nationality is more clearly shown in the following tabulation in which percentage of the year's traffic is substituted for the actual figures and the corresponding percentage figures are shown for 1922. The figures for 1922 are taken from those published in THE PANAMA CANAL RECORD of February 7, 1923.

In this tabulation figures are shown only for those nationalities whose vessels made 50 or more transits during the calendar year, the remaining being grouped under "other:"

PERCENTAGE OF TRAFFIC BY NATIONALITY.

Nationality.	Number of transits.		TONNAGE.								Tolls.		Cargo tonnage.	
			United States equivalent.		Panama Canal net.		Registered.							
							Gross.		Net.					
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
United States...	43.0	56.9	46.6	62.1	46.7	61.7	46.3	61.9	46.6	62.2	46.4	60.9	49.3	63.3
British....	32.3	22.8	32.3	22.2	31.9	22.1	32.1	22.2	31.9	22.0	32.1	22.9	29.6	21.3
Norwegian.	4.4	3.2	3.7	2.7	3.6	2.6	3.6	2.6	3.6	2.6	3.7	2.6	4.3	2.6
Japanese...	5.2	3.1	6.1	3.2	5.6	3.0	5.8	3.1	6.1	3.2	6.3	3.4	6.9	3.4
German...	2.1	2.5	1.6	1.9	1.7	2.1	1.6	1.9	1.5	1.9	1.7	2.0	1.6	2.1
Dutch....	2.4	2.3	2.2	2.2	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3
Peruvian .	2.3	1.5	1.0	0.6	1.4	0.8	1.8	1.0	1.5	0.8	1.0	0.6	0.6	0.4
French...	1.8	1.4	1.9	1.3	1.7	1.3	1.7	1.3	1.7	1.3	1.9	1.5	1.6	1.2
Danish....	1.8	1.3	1.5	1.0	1.6	1.0	1.4	0.9	1.5	0.9	1.5	1.0	1.9	1.2
Chilean...	1.8	1.3	0.9	0.8	1.2	1.0	1.2	1.0	1.1	0.9	1.0	0.8	0.3	0.4
All others..	2.9	3.7	2.2	2.0	2.1	2.0	2.3	1.9	2.3	2.0	2.1	2.0	1.5	1.8
Totals.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Transit of the Pacific Fleet of the United States Navy.

The transit of the Pacific Fleet of the United States Navy through the Canal began on January 16. On that date a total of 28 vessels, including 5 battleships, passed through the Miraflores Locks, 25 vessels passed the Pedro Miguel Lock, and 22 vessels completed the transit. Three of the battleships anchored over night in Miraflores Lake; a repair ship, a submarine tender, and a transport, anchored north of Pedro Miguel.

On January 17, the second day, 35 vessels, including 4 battleships, passed Miraflores, 37 passed Pedro Miguel, and 35 passed Gatun.

On January 18, the third day, 4 vessels passed Miraflores, 5 passed Pedro Miguel, and 9, including 4 battleships, passed Gatun.

At the close of the third day there remained only two auxiliary vessels which had not completed the transit.

The number of commercial vessels locked through the Canal coincident with the passage of the fleet was 21 on January 16, 17 on January 17, and 13 on January 18. Excluding launches, the number of vessels handled on these 3 days, both naval and commercial, was 122.

To handle this heavy traffic the Miraflores Locks were operated until 3.30 a. m. on January 17, and 2.20 a. m. on January 18. The corresponding times at Pedro Miguel were 2 a. m. and 12.30 p. m., and at Gatun 1.35 a. m. and 5.07 a. m. No unusual overtime was necessary on the third day.

The Marine Division, as well as the locks, made extraordinary efforts to facilitate the passage of the fleet with the minimum of interference with current commercial traffic, and all departments of the Panama Canal cooperated to expedite the handling of fleet business. On January 19, the Acting Governor issued the following bulletin to all concerned:

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., January 19, 1924.

BULLETIN.

It will gratify every employee of The Panama Canal and Panama Railroad to know that our organizations were able to, and enthusiastically did, meet every request made by the Army and Navy in connection with the recent combined maneuvers. In fact, in the movement of vessels through the Canal, our own expectations were far exceeded, the transit of the Battle Fleet being completed in about half the time that was planned, notwithstanding that commercial transits were heavy on the days involved.

To the employees who have made this record possible, in some cases at personal sacrifice, I wish to tender the thanks of our community, and of the Zone administration. The accomplishment sustains our reputation for measuring up to all requirements.

M. L. WALKER,
Acting Governor.

Traffic During the First Fifteen Days in January.

From January 1 to 15, inclusive, 237 commercial ships passed through the Canal and paid $1,097,960.42 in tolls. In addition to the 237 commercial vessels, 5 small launches made the transit, paying $9.90 in tolls. The total tolls collection for the period was $1,097,970.32.

The average daily number of commercial transits during the first 15 days of January, 1924, was 15.8 and the average daily collection of tolls thereon was $73,197.36. The average daily collection of tolls on all traffic was $73,198.02. These averages do not quite equal those of December, 1923, but are greater than those of any other month since the opening of the Canal.

The record months for Canal traffic are included in the last 6 months of the calendar year 1923. The following tabulation shows the average daily commercial transits and tolls during those 6 months, and in the first 15 days of January, 1924:

Month.	Daily average transits.	Tolls daily.
July, 1923	15.29	$68,529.36
August, 1923	14.65	66,150.22
September, 1923	13.77	63,415.12
October, 1923	13.77	64,148.63
November, 1923	14.53	68,606.29
December, 1923	16.32	75,346.12
January, 1924 (first 15 days only)	15.80	73,197.36

The average daily number of commercial transits for the year 1923, was 13.80, and the average daily collection of tolls was $62,922.87.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended January 21:

Barge *No. 48*, dock, clean, and scale as necessary to wind and water; paint bottom with one coat of red lead and zinc and one coat of antifouling; remove sheathing from hopper and place on deck; test all tanks and stop leaks; U. S. S. *Camden*, make new intermediate valve and false seat; *Scottish American*, manufacture two valves for oil heaters, one soft steel valve stem, and two valve stem nuts for ballast pump; renew fresh water pipe; manufacture two drag links and two pins for donkey engine; U. S. S. *Seattle*, patch ice freezing tank; steamship *Venezuela*, repair winch, accomodation ladder, and lead pipe in captain's bath; manufacture two main boiler feed valve stems; renew section of salt water line and tee, starboard side, main deck.

Minor repairs—Steamships *Kenuta*, *Jamaica*, *Algonquin* and *Sudawsonco*, U. S. S. *Relief*, and launch *Rodman*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending January 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Calamares	United Fruit Co	January 13	January 13	3	91
Ecuador	Pacific Mail Steamship Co		January 13		52
Ebro	Pacific Steam Navigation Co	January 13	January 14	181	(2)
La Navarre	Cie Generale Transatlantique	January 13	January 15	377	278
Cristobal	Panama Railroad Steamship Line	January 13	January 19	4,088	1,464
San Juan	Pacific Mail Steamship Line	January 13	January 17	1,264	564
Zacapa	United Fruit Co	January 14	January 15	795	70
Cissy	N. O. & S. A. S. S. Line	January 14	January 14	49	122
Scottish American	Anglo-Saxon Petroleum Co	January 14	January 17	9,057	(2)
Jamaica	Pacific Steam Navigation Co		January 15		570
Venezuela	Royal Netherlands W. I. Mail	January 15	January 16	146	1
Mantaro	Peruvian Line	January 15	January 16	37	220
Australien	Danish East Asiatic Co	January 15	January 16	53	(2)
Kenuta	Pacific Steam Navigation Co	January 15	January 16	49	129
Atenas	United Fruit Co	January 16	January 17	953	137
Santa Elisa	Grace Line	January 16	January 17	1½	(2)
Leon XIII	Cia. Trasatlantica	January 16	January 17	273	(2)
Essequibo	Pacific Steam Navigation Co	January 16	January 17	7½	312
Almagro	Pacific Steam Navigation Co	January 16		664	
Zacapa	United Fruit Co	January 17	January 17	4	(3)
Sixaola	United Fruit Co	January 17	January 17	153	364
Metapan	United Fruit Co	January 17	January 17	(1)	27
Songelv	Grace Line	January 17	January 17	67	(2)
Speaker	Harrison Line	January 17	January 19	778	(2)
Santa Olivia	Grace Line	January 18	January 19	68	107
Pastores	United Fruit Co	January 18		179	
Venezuela	Royal Netherlands W. I. Mail	January 18	January 19	13	1,040
Esparta	United Fruit Co	January 19	January 19	57	178
Santa Rosa	Pacific Mail Steamship Co	January 19		355	
Albaro	Societa Nazionale di Navigazione	January 19		252	

[1] No cargo discharged. [2] No cargo laded. [3] 3 Cases.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Coalinga	Union Oil Co	January 13	January 14	10,000	
Akera	Anglo-Saxon Petroleum Co	January 13	January 14	6,775	
Grant [1]	U. S. Army	January 14	January 15	688	14
Jamaica	Pacific Steam Navigation Co	January 15	January 15		25
Manchuria	Panama-Pacific Line	January 17	January 17		1

[1] Transport.

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port au Prince.	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince.	Arrive New York.
General W. C. Gorgas	January 15	January 21	January 24	January 29	February 1	February 6.
Panama	January 25	January 30	February 2	February 9	February 12	February 16.
Cristobal [1]	February 5	February 10	February 13	February 19	February 22	February 26.
General W. C. Gorgas	February 15	February 21	February 24	February 29	March 3	March 8.
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General W. C. Gorgas	April 15	April 21	April 24	April 29	May 2	May 7.
Panama	April 25	April 30	May 3	May 9	May 12	May 16.

[1] Sails at 3 p. m., from Pier 65, North River, foot of West 25th Street.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 19, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
J. A. Moffett, Jr. [1]	12	16.02	13	6.35	13	14.13	13	15.17	American	Standard Oil Co	499.0	68.1	20.0	New York	San Pedro	Ballast		11,037	7,995
Ammon	12	18.00	13	6.35	13	15.17	13	16.29	German	Kosmos Line	458.0	55.0	22.8	Hamburg	Corral	General	4,523	7,341	5,200
Chastine Maersk [2]	13	1.17	13	7.35	13	16.09	13	17.19	Danish	A. P. Moller	367.0	50.0	7.6	Marseilles	Los Angeles	Ballast		5,526	4,066
Tuxpanoil [1]	13	5.45	13	7.35	13	16.57	13	21.24	American	McAllister Brothers (S. B.)	431.0	59.2	19.0	New York	San Pedro	Ballast		7,862	5,049
Canadian Constructor	13	6.45	13	8.20	13	16.48	11	0.32	British	Canadian Govt. Mer. Marine	430.0	56.0	21.0	New London	Auckland	General	4,000	7,680	5,494
Steelage	13	7.40	13	8.45	13	17.40	14	3.06	American	U. S. Steel Products Co	396.0	55.0	26.6	Baltimore	Honolulu	(6)	8,880	7,330	5,215
London Importer	13	0.03	13	9.50	13	17.45	13	23.18	British	Furness Withy & Co	450.0	58.0	21.0	Swansea	Vancouver	General	3,052	8,600	6,099
Corinthic	13	1.30	13	12.52	13	20.24	13	21.24	British	White Star Line	500.3	63.3	27.5	London	Wellington	General	5,885	12,821	9,507
Rotarian [3]	13	13.31	14	6.10	14	16.42	14	17.40	American	U. S. Army	396.0	53.2	16.6	Brooklyn	San Francisco	(7)	2,900	5,660	4,059
Ebro	13	16.00	14	6.25	14	17.44	14	18.40	British	Pacific Steam Navigation Co	450.0	57.0	25.2	New York	Valparaiso	General	2,459	9,151	6,227
Agwimoon [1]	13	15.00	14	7.30	14	18.02	14	19.17	American	Atl. Gulf & W. I. S. S. Co	429.3	59.2	19.0	Tampico	Los Angeles	Ballast		7,645	5,500
City of Bagdad	13	16.57	14	7.33	14	18.18	14	19.17	British	Ellerman City Line	470.3	58.0	24.0	New York	Adelaide	General	5,020	8,497	5,984
H. H. Rogers [1]	13	17.55	14	8.35	14	18.55	14	20.05	American	Standard Oil Co	500.0	68.0	19.0	New York	San Pedro	Ballast		10,333	7,475
Romsdalsho n	13	14.00	14	8.43	14	19.11	14	20.25	Norwegian	O. G. and T. H. Olsen	420.0	53.9	15.6	Savannah	Antofagasta	Ballast		6,592	4,733
Bowes Castle	13	19.40	14	9.40	14	19.43	14	20.44	British	James Chambers & Co	418.5	56.1	26.6	Baltimore	Swatow	General, case oil	7,700	6,675	4,698
Ethelfreda	13	22.15	14	10.15	14	20.06	14	21 13	British	Harrowing Steamship Co	400.3	52.0	16.0	Cardiff	Vancouver	Ballast		6,153	4,416
Foyle	14	6.15	14	11.15	14	20.45	14	21.50	British	Hain Steamship Co	400.0	53.0	20.6	New York	Newcastle	General	3,598	5,695	4,215
Agwipond [1]	14	6.23	14	11.20	14	20.54	19	17.53	American	Guaranty Trust Co	468.0	62.7	19.0	London	San Pedro	Ballast		9,810	6,965
Robin Goodfellow	14	7.55	14	12.00	14	21.30	14	22.43	American	Robin Line Steamship Co	425.0	55.0	27.7	New York	San Diego	General	8,871	7,473	5,536
Cissy	14	5 55	14	12.55	14	21.44	14	23.00	Norwegian	Tork & Wiese	300.0	44.2	18.3	New Orleans	Talcahuano	General	1,797	2,976	2,119
Edvard Munch	14	12.33	14	14.05	14	22.14	14	23.32	Norwegian	Olaf Orvig	314.0	46.7	12.0	Norfolk	Vancouver	Ballast		3,027	2,070
Rumania [1]	14	6.45	14	13.30	14	20.37	15	4.29	British	Pacific Towing & Lumber Co	116.0	25.6	10.0	St. Thomas	Vancouver	Ballast		270	53
Roy [5]			14	7.30	14	10.58			American	J. A. Walker				Cristobal	Gatun Lake			2	2
Cambrai [3]	14	8.48	15	6.05	15	12.36	15	13.33	American	U. S. Army	448.0	58.0	23.11	Brooklyn	San Francisco	Army supplies	461		
Toco [1]	14	11.30	15	6 29	15	14.11	15	15.28	British	Chile Steamship Co	449.0	56.0	26.5	Tampico	Antofagasta	Crude oil	9,830	7,693	4,831
Jennie R. Morse	14	13.55	15	7.10	15	14.55	15	16.00	American	Barber Line (S. B.)	402.6	53.2	25.9	New York	Kobe	General	7,789	6,570	4,798
Baltimore Maru	14	15.20	15	7.10	15	15.10	15	16.10	Japanese	Kawasaki Dockyard Co	405.0	53.0	28.0	Baltimore	Kobe	(8)	8,270	7,025	5,055
Craster Hall	14	15.45	15	8.25	15	15.40	15	16.36	American	U. S. Steel Products Co	380.0	50.0	24.0	Baltimore	San Pedro	General	5,455	4,945	3,508
Dillwyn [1]	14	16.25	15	8.53	15	15.57	15	17.00	American	Malston Co	435.0	56.0	22.0	New York	San Pedro	Ballast		7,441	5,151
Montpelier	14	18.25	15	9.39	15	16.56	15	20.50	American	United American Lines	469.0	57.11	20.0	Liverpool	Seattle	General	4,653	6,368	4,161
Matakana	14	20.30	15	9.40	15	17.27	15	18.35	British	Shaw, Savill & Albion Co	477.0	63.0	26.0	Liverpool	Auckland	General	6,679	11,047	7,822
Charles Pratt [1]	14	23.50	15	10.50	15	18 03	15	19.04	American	Standard Oil Co	500.0	68.0	17.0	New York	San Pedro	Ballast		10,313	7,492
Knut Hamsun	14	21.25	15	11.05	15	20.16	16	0.03	Norwegian	Olaf Orvig	310.0	44.0	20.11	Tampa	Yokohama	Phosphate rock	3,292	2,972	2,086

[1] Tanker. [2] Motor ship. [3] Transport. [4] Tug. [5] Launch. [6] Steel, tin plate, ammonia, and general. [7] Military supplies. [8] General, steel, and cotton.

Jamaica	8	20.01	15	10.55	15	18.43	15	22.30	British	Pacific Steam Navigation Co	220.0	33.0	12.3	Cristobal	Champerico	General	568	1,187	622
Livingston Roe [1]	15	5.45	15	12.15	15	19.15	15	20.20	American	Standard Oil Co	477.9	60.0	18.0	New York	San Pedro	Ballast		8,489	6,065
Tritonia	15	6.30	15	12.25	15	20.35	15	21.54	British	Donaldson Brothers	415.0	52.0	17.0	Cardiff	Seattle	Ballast		5,984	4,287
Scottish Musician [9]	15	6.47	15	13.05	15	20.40	16	2.33	British	Tankers Limited	424.8	57.0	22.10	Antwerp	San Francisco	Ballast		7,115	5,010
Horda	15	7.00	15	13 10	15	20.56	15	10.01	Norwegian	J. L. Mowinckle	380.0	54.0	13.0	Rotterdam	San Francisco	Ballast		5,745	4,135
Cornish City	15	11.55	15	13.40	15	21.59	15	23.06	British	St. Just Steamship Co	400.1	52.0	24.0	New York	Brisbane	General	5,385	5,743	1,139
Agwisea [1]	15	13 55	16	6.25	16	18.18	16	19.19	American	Atl. Gulf & W. I. S. S. Co	468.3	62.7	22.0	Baltimore	San Pedro	Ballast		9,802	6,961
Peterton	15	15.24	16	6.25	16	19.09	16	20 14	British	R. Chapman & Sons	400.1	52.4	14.0	Rio Janeiro	Vancouver	Ballast		5,885	4,144
Aldebaran	15	17.00	16	7.20	16	16.12	16	17.30	Dutch	V. N. Goudriaan Steam Nav. Co	472.4	60.5	17.0	Bermuda	Puget Sound	Ballast		8,619	5,854
Australien [9]	15	17.18	16	7.35	16	17.20	16	22.09	Danish	East Asiatic Steamship Co	410.0	55.0	25.3	Antwerp	Vancouver	General	6,880	7,031	5,338
Laristan	15	20.42	16	8.35	16	19.58	17	0.38	British	Hindustan Steamship Co	385.0	53.0	15.6	Barry	San Francisco	Ballast		5,314	3,987
Steel Traveler	15	22.04	16	8.33	16	21.48	16	22.33	American	U. S. Steel Products Co	424.2	56.2	25.0	New Orleans	Kobe	Steel, cotton	8,630	7,698	5,599
Gdansk	15	22 04	16	9.45	16	20.45	16	21.59	American	Oceanic Steamship Co	400.0	50.0	20.0	New York	San Francisco	Ballast		6,438	4,142
Makiki	16	0.55	16	9.55	16	23.40	17	5.08	American	Matson Navigation Co	402.0	54.2	19.5	Baltimore	San Pedro	General	4,773	6,926	5,023
Grange Park	16	1.11	16	11.02	17	0.24	17	1.52	British	I. J. Denholm	400.0	52.0	19.0	New York	Callao	Ballast		5,710	4,022
Kenuta	15	15.52	16	10.48	16	23.05	17	0.01	British	Pacific Steam Navigation Co	412.0	52.0	22.6	Hull	Valparaiso	General	5,398	6,426	4,704
India Arrow [1]	16	6.10	16	11 53	17	3.04	17	4.20	American	Standard Transportation Co	468.0	62.0	26.10	Sabine	Darien	Kerosene oil	11,205	10,084	7.426
Mantaro	15	17.30	16	12 20	17	1.22	17	3.15	Peruvian	Peruvian Line	367.3	46.0	19.11	Cartagena	Callao	General	252	4,838	2,959
W. S. Rheem [1]	16	6 25	16	13.00	17	2.00	17	3.15	American	Standard Oil Co	500.0	68.2	21.0	New York	San Pedro	Ballast		11,224	7,860
Eurana [1]	16	6.35	16	13.37	17	3.45	17	5.08	American	New York Shipbuilding Co	419.5	56 5	15.6	Baltimore	San Pedro	Ballast		6,985	4,976
Paparoa	16	15.18	17	6.07	17	15.31	17	22.00	British	New Zealand Shipping Co	430.0	54.0	21.0	Liverpool	Auckland	General	4,105	7,836	5,835
Santa Elisa	16	22.05	17	6.25	17	16.29	17	18.30	American	Grace Line	360.3	51.7	25 3	New York	Talcahuano	General	2,475	5,957	4,325
San Juan	13	13.55	17	6 25	17	17.23	17	21.16	American	Pacific Mail Steamship Co	283.0	37.0	15.0	Cristobal	San Francisco	General	538	2,379	1,593
Andrea F. Luckenbach	16	15.55	17	7.35	17	18.20	17	19.15	American	Luckenbach Line	496.0	68.0	22 10	New York	Seattle	General, steel	6,400	11,487	8,762
W. L. Steed [1]	16	18.00	17	7.45	17	19.15	17	20.06	American	Pan-American Petroleum Co	416.8	56.1	22.0	Santos	San Pedro	Ballast		6,751	4,785
M. F. Elliott [1]	16	19.41	17	8.30	17	20.18	17	21.40	American	Standard Oil Co	425.0	57.2	20.0	Rotterdam	San Pedro	Ballast		7,481	4,946
John D. Archbold [1]	16	19.42	17	9.05	17	21.01	17	22.00	American	Standard Oil Co	554.9	75.3	22.0	New York	San Pedro	Ballast		11,785	10,313
Jadden	17	7.05	17	10 00	17	22.05	17	23.18	American	Tampa Interocean S. S. Co. (S.B.)	410.5	54.0	25.6	New Orleans	Shanghai	General	7,581	7,496	5,686
Cecil County [1]	17	6.41	17	10.15	17	22.51	17	23.55	American	Walker & Daly (S. B.)	431.0	59.2	17.6	Fall River	Los Angeles	Ballast		8,097	5,330
Woyo Maru	17	0.20	17	10.49	17	23.55	18	10.54	Japanese	Toyo Kisen Kaisha	400.0	53.0	24 6	New York	Yokohama	General	7,328	6,187	4,541
Manchuria	17	9.19	17	10.40	18	0.51	18	7.02	American	Panama-Pacific Line	600.0	65.3	27.5	New York	San Francisco	General	1,469	17,044	11,488
Samuel Q. Brown [1]	17	10.30	17	12.40	18	1.33	18	2.28	American	Tidewater Oil Co	424.4	58.2	19.6	New York	San Pedro	Ballast		7,333	5,246
Saint Andre	17	6.43	17	13.25	18	2.25	18	3.12	French	Cie Generale Transatlantique	397.0	50.3	20.6	Havre	Talcahuano	General	2,296	5,917	4,116
Leon XIII	16	19.55	18	6 15	18	14.16	18	15.25	Spanish	Cia Trasatlantica	460.4	46.1	22.5	Barcelona	Valparaiso	General	196	5,521	3,729
Walter Jennings [1]	17	13 02	18	6.30	18	15.41	18	16.45	American	Standard Oil Co	499.2	68.0	21.0	New York	San Pedro	Ballast		11,037	7,995
Toba Maru	17	14.25	18	7.25	18	16.44	18	17.44	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.4	New York	Moji	General	8,262	8,058	5,743
Diana Dollar	17	16.45	18	7.35	18	17.14	18	18.10	American	Dollar Line	429.0	55.2	18.0	Baltimore	San Pedro	General	2,596	7,582	5,521
Washington Maru	18	9 55	18	10.10	18	18 45	19	1 55	Japanese	Kokusai Kisen Kaisha	385.0	51 0	27.6	New York	Kobe	General	6,736	5,919	4,400
Algonquin [1]	17	1.15	18	12.15	18	18.42	18	19.45	American	Standard Transportation Co	435.0	56.0	16.6	Providence	San Pedro	Ballast		7,602	5,337
Songelv	17	16.10	18	12 40	18	20.20	18	21.38	Norwegian	S. O. Stray	295.0	42.0	20.0	New York	Pacasmayo	General	3,118	2,909	1,884
Oneka	18	7.15	18	13.15	18	21.36	18	23.00	British	Standard Transportation Co	423.0	52.3	21.3	New York	Yokohama	General	5,492	6,532	4,920
Allipen	18	13.10	19	6.30	19	14.02	19	15.03	Chilean	Alb. Haverbeck & Sons	310.0	37.0	14.6	Hamburg	Corral	(11)	1,025	1,973	1,371
J. N. Pew [1]	18	14 58	19	6.35	19	15.01	19	16.00	American	Sun Oil Co	480 5	66.0	19.6	Philadelphia	San Pedro	Ballast		9,491	6,612
Henderson [10]	17	20.20	19	7.10	19	15.23			American	U. S. Navy	482.0	61.1	22.0	Norfolk	Balboa	Troops only			

[1] Tanker.

[9] Motor ship.

[10] Transport.

[11] General, and 17 head of cattle.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Scotland Maru	18	16.53	19	7.30	19	15.54	19	17.15	Japanese	Kisen Kabushiki Kaisha	385.0	51.0	26.0	Mobile	Yokohama	Steel	6,885	5,919	4,392
City of Dunedin	19	6.15	19	9.15	20	20.01			British	Ellerman-Hall Line	476.0	69.0	24.0	New York	Sydney	General	8,920	8,691	6,015
Nevadan	19	8.50	19	9.05	19	15.35	19	23.00	American	American-Hawaiian Line	368.5	55.2	26.0	Savannah	Seattle	General	4,500	5,671	3,627
Mount Berwyn	18	20.15	19	10.50	19	17.26	19	18.36	British	Sefton Steamship Co	400.0	52.0	15.0	Newcastle	Tocopilla	Ballast	....	5,783	3,990
Argon [1]	19	10.30	19	10.50	19	18.05	19	18.58	American	Standard Transportation Co	435.1	56.2	19.0	New York	San Pedro	Ballast	....	7,386	5,183
Vamp [12]	18	1.55	18	....	19	13.25	....	....	American	George B. Graff	....	....	....	Cristobal	Gatun Lake	Ballast	....	....	....

[1] Tanker. [12] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

San Juan	12	12.50	13	6.30	13	13.55	17	6.25	American	Pacific Mail Steamship Co	283.0	37.0	16.6	San Francisco	Cristobal	General	1,266	2,379	1,593
Vinita	12	19.30	13	7.00	13	14.55	13	14.55	American	Sudden & Christensen	410.5	54.3	24.6	Everett	Baltimore	General, lumber	6,621	6,572	4,910
E. T. Bedford [1]	13	2.30	13	8.11	13	16.44	13	16.44	American	Standard Oil Co	500.0	68.0	30.0	San Pedro	New York	Crude oil	15,000	10,895	7,688
Chuky [1]	13	2.00	13	8.23	13	16.05	14	1.55	British	Chile Steamship Co	440.8	56.1	14.8	Tocopilla	Tampico	Ballast	....	7,691	4,723
Anglo-Egyptian	13	7.00	13	8.50	13	17.45	13	21.25	British	Lawther, Latta Co	425.0	56.3	29.5	Vancouver	Antwerp	Wheat	9,657	7,472	5,262
Jupiter	13	7.15	13	9.05	13	18.05	13	20.55	Spanish	Cia. Anomia Maritima	390.0	52.6	24.0	Iquique	Europe	Nitrate	7,295	5,223	3,994
San Francisco	13	8.25	13	9.40	13	18.50	13	20.15	American	Isthmian Steamship Lines	405.0	52.0	25.0	Seattle	Liverpool	General	6,616	6,186	4,449
Clauseus	13	11.20	13	12.14	13	19.25	14	1.30	American	Planet Line	499.8	51.2	19.6	Honolulu	New York	Canned pineap's.	1,599	6,581	1,295
Harold Walker [1]	13	11.45	13	12.45	13	21.00	13	21.00	American	Pan-American Petroleum Co	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	10,700	6,973	4,658
Vixen [13]	....	....	13	8.04	13	18.30	....	....	American	O. Rold	....	....	....	MirafloresLake	Cristobal	....	....	....	....
K. R. Kingsbury [1]	13	11.50	13	13.18	13	22.10	13	22.10	American	Standard Oil Co. of California	449.0	58.2	30.6	Los Angeles	New York	Crude oil	11,000	9,033	5,938
Chilore	13	22.26	14	6.21	14	18.05	14	18.05	American	Ore Steamship Corporation	559.0	72.2	33.0	Cruz Grande	Baltimore	Iron ore	20,200	11,538	9,348
Lio [1]	13	12.00	14	6.52	14	19.20	14	19.20	American	McAllister Brothers (S. B.)	431.0	59.2	26.6	San Pedro	Philadelphia	Gasoline	9,900	7,862	5,177
Indien [14]	13	12.25	14	7.31	14	18.15	14	18.15	Danish	Dupont & Co	390.7	53.2	28.2	Iquique	Colon [15]	Nitrate	8,785	6,173	4,418
Sunbeam [1]	13	15.40	14	7.52	14	19.35	14	19.35	American	Sun Oil Co	429.3	59.2	27.6	San Pedro	Philadelphia	Crude oil	10,857	7,709	5,481
Maine	13	12.50	14	8.41	14	20.30	14	20.30	American	Seas Shipping Co	400.0	54.2	28.0	Seattle	Philadelphia	Ore, lumber	7,109	6,936	4,998
San Felix [1]	13	17.00	14	9.04	14	22.10	14	22.10	British	Anglo-Mexican Petroleum Co	530.0	69.4	30.0	Los Angeles	Tampa	Crude oil	17,464	13,556	7,593
Dean Emery [1]	14	6.45	14	10.27	14	20.55	14	20.55	American	Pan-American Pet. & Transp. Co	430.0	59.0	26.1	San Pedro	New Orleans	Crude oil	8,822	7,709	5,517
Scottish American [1]	14	3.30	14	10.38	14	22.10	17	6.45	British	Anglo-Saxon Petroleum Co	425.0	57.0	25.3	San Francisco	Colon [15]	Fuel oil	9,057	7,080	5,127
Agwihavre [1]	14	7.15	14	11.00	14	22.40	14	22.40	American	Ward Line	480.5	66.0	29.0	Los Angeles	Baltimore	Crude oil	13,070	9,394	6,305
Norway Maru	14	7.10	14	12.17	14	23.15	14	23.15	Japanese	Kawasaki Dockyard Co	385.0	51.0	27.10	Mejillones	Colon [15]	Nitrate of soda	8,512	6,254	4,705
San Patricio [1]	14	12.15	14	13.18	15	0.45	15	1.25	British	Eagle Oil Transport Co	530.0	66.6	30.6	Los Angeles	Tuxpan	Crude oil	15,570	11,886	8,661
Mundelta	14	12.45	14	14.01	15	1.35	15	1.55	American	Munson Steamship Line	378.0	53.2	23.0	Coos Bay	New York	Lumber	4,400	5,668	4,297
Agwilake [1]	15	3.00	15	7.07	15	17.47	15	17.47	American	Ward Line	468.3	62.7	28.0	San Pedro	New York	Crude oil	12,255	9,802	6,957
Matinicock [1]	15	4.00	15	8.21	15	18.50	15	18.50	American	Standard Oil Co. of N. J.	459.1	60.0	25.6	San Pedro	New York	Crude oil	10,331	8,171	6,014

[1] Tanker. [13] Launch. [14] Motor ship. [15] For orders.

Curlew [16]			15	14.04	15	20.40			American	U. S. Navy	180.0	35.6		Balboa	Cristobal					
Grant [17]	13	23.44	16	6.22	16	14.42	16	14.42	American	U. S. Army Transport Service	490.0	55.3	25.0	San Francisco	Brooklyn	([26])	166			
Fred W. Weller [1]	15	18.30	16	6.52	16	18.10	16	20.10	American	Standard Oil Co. of N. J.	500.0	68.0	29.7	San Pedro	New York	Crude oil	16,500	10,928	7,710	
Floridian	15	18.00	16	7.06	16	16.20	16	16.20	American	American-Hawaiian Line	415.0	53.7	19.0	Seattle	Boston	General	2,947	7,273	5,105	
Almagro	16	0.15	16	7.36	16	18.30			British	Pacific Steam Navigation Co.	303.0	43.0	18.2	Guayaquil	New York	General	1,900	2,878	1,714	
Essequibo	16	6.47	16	8.27	16	19.45	17	1.37	British	Pacific Steam Navigation Co.	460.0	67.6	24.3	Valparaiso	New York	([27])	2,500	9,099	6,117	
S-39 [18]	16		16	7.26	16	16.22			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-40 [18]	16		16	7.26	16	16.22			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
Beaver [19]	16		16	8.40	16	18.40			American	U. S. Navy	380.0	47.0	21.0	Pacific	Atlantic					
S-36 [18]	16		16	8.45	16	18.40			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-37 [18]	16		16	8.45	16	18.40			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-31 [18]	16		16	8.50	16	21.00			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-34 [18]	16		16	8.50	16	19.20			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-30 [18]	16		16	9.04	16	19.20			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-35 [18]	16		16	9.04	16	21.00			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-32 [18]	16		16	9.04	16	19.50			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
S-33 [18]	16		16	9.01	16	19.50			American	U. S. Navy	220.0	21.0	16.0	Pacific	Atlantic					
Relief [20]	16		16	10.19	16	22.50			American	U. S. Navy	484.0	61.0	21.0	Pacific	Atlantic					
No. 262 [21]	16		16	10.34	16	19.50			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 314 [21]	16		16	10.14	16	19.59			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 319 [21]	16		16	10.25	16	21.00			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 318 [21]	16		16	10.25	16	21.00			American	U. S. Navy	315.0	21.0	13.0	Pacific	Atlantic					
Procyon [22]	16		16	10.40	16	21.30			American	U. S. Navy	401.0	54.0	24.5	Pacific	Atlantic					
No. 315 [21]	16		16	10.51	16	20.30			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 317 [21]	16		16	10.51	16	20.30			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
Santa Cecilia	16	10.02	16	11.45	16	23.33	16	23.33	American	Planet Line	404.6	53.9	20.0	San Diego	Philadelphia	General	2,000	6,745	4,562	
Sagoland	16	11.20	16	12.04	17	1.00	17	2.00	Swedish	Axel Bostrom & Sons	436.0	54.0	26.8	Mejillones	Colon [28]	Nitrates	9,340	6,840	5,014	
Gannet [23]	16		16	12.47	16	22.40			American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic					
Ortolan [23]	16		16	13.10	16	22.45			American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic					
Tern [23]	16		16	14.05	16	23.37			American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic					
Mexican	16	6.15	16	14.33	17	2.00	17	2.27	American	American-Hawaiian Line	472.3	57.2	21.10	Seattle	Philadelphia	General, lumber	4,327	9,258	6,874	
California [24]	16		16	15.07	17	15.00			American	U. S. Navy	624.0	97.3	32.0	Pacific	Atlantic					
New York [25]	16		16	16.03	17	17.50			American	U. S. Navy	573.0	95.2	30.0	Pacific	Atlantic					
Texas [25]	16		16	16.53	17	18.50			American	U. S. Navy	573.0	95.2	30.0	Pacific	Atlantic					
Nevada [25]	16		16	17.49	17	18.50			American	U. S. Navy	583.0	95.2	30.0	Pacific	Atlantic					
Arizona [24]	16		16	18.14	17	20.05			American	U. S. Navy	608.0	97.0	30.0	Pacific	Atlantic					
Rimutaka	16	13.50	17	6.47	17	21.45	18	6.45	British	New Zealand Shipping Co.	457.7	58.2	25.6	New Plymouth	London	Frozen, general	5,500	9,201	6,961	
Widgeon [23]	16		17	6.47	17	21.20			American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic					
No. 320 [21]	16		17	6.47	17	20.18			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 323 [21]	16		17	6.49	17	20.18			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 325 [21]	16		17	7.19	17	20.18			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 331 [21]	16		17	7.19	18	19.20			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
Ariaga Mendi	16	6.30	17	7.30	17	22.55	17	22.55	Spanish	Sota & Aznar	393.0	52.9	24.4	Vancouver	Hull	Wheat	8,000	5,977	4,396	
No. 333 [21]	16		17	8.31	17	22.15			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 334 [21]	16		17	8.31	17	22.15			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 330 [21]	16		17	8.41	17	22.20			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 332 [21]	16		17	8.41	17	22.20			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
Melvile [21]	16		17	8.28	17	23.55			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					
No. 279 [21]	16		17	9.12	17	23.00			American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic					

[1] Tanker. [16] Navy tug. [17] Army transport. [18] Submarine. [19] Submarine tender. [20] Hospital ship. [21] Destroyer. [22] Repair ship. [23] Mine sweeper. [24] Dreadnought.
[25] Battleship. [26] Hay, oats, household goods, and general. [27] Copper, nitrate, wool, cotton, and general. [28] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
No. 341 [32]	16	.....	17	9.12	17	23.00	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 276 [32]	16	.....	17	9.19	18	0.35	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 280 [32]	16	.....	17	9.19	18	0.35	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Altair [32]	16	.....	17	10.06	18	0.50	.....	.....	American	U. S. Navy	424.0	54.0	28.0	Pacific	Atlantic				
No. 278 [32]	16	.....	17	10.32	18	1.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 300 [32]	16	.....	17	10.32	18	1.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 275 [32]	16	..	17	10.33	18	1.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 299 [32]	16	.....	17	10.33	18	1.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Caddo [1]	17	4.00	17	10.57	18	1.55	18	1.55	American	Standard Oil Co. of N. J.	414.5	55.2	27.8	San Pedro	New York	Crude Oil	9,000	6,437	4,442
No. 301 [32]	16	.....	17	11.42	18	3.00	.....	.....	American	U. S Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 308 [32]	16	.....	17	11.42	18	3.00	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 298 [32]	16	.....	17	12.12	18	3.00	.....	.....	American	U. S. Navy	315.0	31 0	13.0	Pacific	Atlantic				
No. 304 [32]	16	.....	17	12.12	18	3.00	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Prometheus [33]	16	.....	17	12.27	18	3.15	.....	.....	American	U. S. Navy	466.0	60.0	27.0	Pacific	Atlantic				
Brant [34]	16	.....	17	12.37	18	3.15	.....	.....	American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic				
No. 305 [32]	16	.....	17	13.32	18	4.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 307 [32]	16	.....	17	13.32	18	4.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 303 [32]	16	.....	17	13.39	18	4.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 302 [32]	16	.....	17	13.39	18	4.30	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Partridge [34]	16	.....	17	14.23	18	5.57	.....	.....	American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic				
Kingfisher [34]	16	.....	17	14.23	18	5.57	.....	.....	American	U. S. Navy	188.0	37.0	12.0	Pacific	Atlantic				
Durango [1]	17	10.25	17	14.46	18	5.55	18	5.55	American	C. D. Mallory & Co	435.0	56.0	28.5	San Pedro	New York	Crude oil	9,000	7,643	5,301
Vamp [35]	.....	.....	17	15.00	18	1.55	18	.....	American	George Graff	.....	.....	.....	Balboa	Cristobal				
New Mexico [36]	16	.....	17	15.18	18	12.53	.....	.....	American	U. S. Navy	624.0	97.4	32.0	Pacific	Atlantic				
Maryland [36]	16	.....	17	15.56	18	13.40	.....	.....	American	U. S. Navy	624.0	97.3	32.0	Pacific	Atlantic				
Mississippi [36]	16	.....	17	18.04	18	15.30	.....	.....	American	U. S. Navy	624.0	97.4	32.0	Pacific	Atlantic				
Idaho [36]	16	.....	17	18.44	18	17.00	.....	.....	American	U. S. Navy	624.0	97.4	32.0	Pacific	Atlantic				
Omaha [37]	16	.....	17	6.43	18	17.16	19	.....	American	U. S. Navy	556.0	55.0	30.0	Pacific	Atlantic				
Empress of Canada	17	6.15	18	7.02	18	19.00	18	23.40	British	Canadian Pacific Steamship Co.	627.0	77.9	27.6	Vancouver	New York	Ballast		23,345	15,731
No. 321 [32]	16	.....	18	7.18	18	19.07	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
No. 322 [32]	16	.....	18	7.23	18	19.07	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Kanawha [38]	16	.....	18	7.55	18	20.45	.....	.....	American	U. S. Navy	315.0	31.0	13.0	Pacific	Atlantic				
Oroma	18	4.05	18	8.50	18	19.55	19	6.05	British	Pacific Steam Navigation Co.	528.0	62.0	28.0	Coronel	Liverpool	General	6,919	12,414	8,302
Gulf Queen [1]	17	18.30	18	8.51	18	21.15	18	21.15	American	Gulf Refining Co	435.0	56.5	26.0	San Pedro	Philadelphia	Gasoline	13,810	6,890	5,029
Cold Harbor	18	4.20	18	11.42	18	22.05	18	22.05	American	North Atlantic & West. S. S. Co.	390.0	54.2	24.0	Portland	Philadelphia	General, lumber	5,860	6,167	4,290
Santa Olivia	18	10.15	18	12.14	18	22.00	19	10.22	American	Pacific Mail Steamship Co.	404.0	53.0	24.0	San Francisco	Baltimore	General	4,526	6,779	4,921
Neches [38]	16	.....	19	6.35	19	14.20	.....	.....	American	U. S. Navy	476.0	58.0	28.0	Pacific	Atlantic				
J. M. Danziger [1]	18	15.15	19	7.05	19	15.15	19	15.15	American	Pan-Amer. Pet. & Transp. Co.	430.0	58.2	27.0	San Pedro	New Orleans	Crude oil	11,500	6,963	4,886

[1] Tanker. [32] Destroyer. [32] Destroyer tender. [33] Repair ship. [34] Mine sweeper. [35] Launch. [36] Dreadnought. [37] Battleship. [38] Naval oil tanker.

W. F. Burdell [1]	18	15.35	19	7.03	19	15.35	19	15.35	American	Pure Oil Steamship Co.	435.0	56.0	27.6	San Pedro	Philadelphia	Crude oil	10,451	7,434	5,093
Kellerwald	18	19.40	19	7.50	19	17.20	20	3.15	German	Hamburg-American Line	399.4	54.2	24.0	Valparaiso	Hamburg	(41)	7,706	6,545	4,483
Canadian Spinner	18	21.40	19	8.27	19	17.40	19	18.50	British	Canadian Govt. Mer. Marine	400.0	52.4	17.0	Sydney	New York	General	3,500	5,871	4,094
Cuyama [40]	16		19	8.55	19	17.55			American	U. S. Navy	476.0	28.0	28.0	Pacific	Atlantic				
Agwibay [1]	18	22.30	19	9.20	19	19.00	19	19.00	American	Ward Line	468.3	62.7	27.10	San Pedro	New York	Crude oil	12,020	9,776	6,903
Trelissick	19	3.05	19	10.29	19	19.06	19	19.06	British	Edward Hain & Sons.	400 0	52.0	25.0	Iquique	Charleston	Nitrates	7,479	5,804	4,066

[1] Tanker. [40] Naval oil tanker. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian. [41] Copper, brass, hides, and nitrate of soda.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 13	Calamares	United Fruit Co	Port Limon.	January 13	Calamares	United Fruit Co	New York via Habana.
January 13	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	January 15	La Navarre	Cie. Generale Transatlantique	St. Nazaire via wayports.
January 13	La Navarre	Cie. Generale Transatlantique	St. Nazaire via wayports.	January 15	Zacapa	United Fruit Co	Bocas del Toro.
January 14	Zacapa	United Fruit Co	New Orleans via Habana.	January 15	Linda S. [42]	Surgeon Brothers	Colon.
January 15	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.	January 16	Venezuela	Royal Netherlands W. I. Mail Co.	Port Limon.
January 16	Atenas	United Fruit Co	New Orleans via Habana.	January 16	Arabia [42]	Panama Plantation Syndicate	Colon.
January 17	Metapan	United Fruit Co	Colombian ports.	January 17	Metapan	United Fruit Co	New York via Kingston.
January 17	Sixaola	United Fruit Co	New York via Kingston.	January 17	Zacapa	United Fruit Co	New Orleans via Habana.
January 17	Zacapa	United Fruit Co	Bocas del Toro.	January 17	Atenas	United Fruit Co	New Orleans via wayports.
January 17	Speaker	Harrison Line	Liverpool via wayports.	January 17	Sixaola	United Fruit Co	Colombian ports.
January 18	Reliance	United American Lines	New York via Habana and Kingston.	January 18	Reliance	United American Lines	Curacao.
January 18	Pastores	United Fruit Co	New York via Habana and Jamaica.	January 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
January 18	Venezuela	Royal Netherlands W. I. Mail Co	Port Limon.	January 19	Venezuela	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.
January 19	Esparta	United Fruit Co	Boston, via Habana and Port Limon.	January 19	Speaker	Harrison Line	Santiago, Cuba.
				January 19	Esparta	United Fruit Co	Boston.

[42] Motor schooner.

PORT OF BALBOA.

January 13	Coalinga [1]	Union Oil Co. of California	Port San Luis.	January 14	Coalinga [1]	Union Oil Co. of California	San Pedro.
January 13	Akera [1]	Shell Oil Co. of California	San Pedro.	January 16	Akera [1]	Shell Oil Co. of California	San Pedro.
January 19	Atrato	Compania Colombia de Transportes	Buenaventura.				

[1] Tanker.

* Other than ships passing through the Canal.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective January 12, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.375
Bronze, Tobin, average	Lb.	.275
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.25
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.585
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Official Circular.

Grass Fires.

THE PANAMA CANAL,
SUPPLY DEPARTMENT,
BALBOA HEIGHTS, C. Z., January 19, 1924.

To all concerned—During every dry season there is danger of grass fires in the cattle pastures and on several occasions in the past the Cattle Industry Division sustained the loss of valuable pastures that are most needed to sustain cattle during the dry season.

Such grass fires are very easily started during this time of year and it is therefore requested that all persons who have occasion to enter any of the pastures or grass areas exercise the greatest possible care to prevent the occurrence of grass fires. This applies principally to the pastures in the vicinity of Summit and Gold Hill which have been burned nearly every year as a result of grass fires.

R. K. MORRIS,
Chief Quartermaster.

Approved:
M. L. WALKER,
Acting Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $1.65 per barrel at Cristobal, and $1.45 to $1.55 at Balboa; Diesel oil, Balboa only, $1.80 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ships' facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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Supplement No. 5.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., January 17, 1924.

ITEM 21.—COAL.
(Effective February 1, 1924.)

	Cristobal-Colon.	Balboa.
4. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$10.00	$13.00
5. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting transit		10.00
6. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	11.00	14.00
7. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	13.00	16.00

M. L. WALKER,
Acting Governor, The Panama Canal.
Second Vice President, Panama Railroad Company.

Transit and Harbor Regulations.

BALBOA HEIGHTS, C. Z., January 30, 1924.

To all concerned—The *Rules and Regulations for the Operation and Navigation of the Panama Canal* have been revised and reissued in a pamphlet entitled *Transit and Harbor Regulations of the Panama Canal and Approaches thereto, including all waters under its Jurisdiction.* These revised regulations have been distributed to steamship agents and others interested, and are now in force and effect.

M. L. WALKER,
Acting Governor.

Traffic Prospects.

A comparison of the traffic statistics for the second half of the calendar year 1923 (July-December), with the figures for the corresponding months of the previous year will indicate at what rate and in what directions traffic through the Canal is developing.

The cargo in transit from Atlantic to Pacific from July to December, 1923, totaled 3,930,290 tons, as against 3,193,880 tons from July to December, 1922. The increase is equivalent to 23 per cent.

The cargo from Pacific to Atlantic during the same periods was 9,585,443 tons and 4,729,183 tons, or an increase of 102 per cent.

If California crude oil is deducted from the last totals, then the 1923 cargo tonnage from Pacific to Atlantic figures out at 4,616,239 tons, and the 1922 tonnage at 4,274,356 tons, and the increase amounts to 8 per cent.

In the following table the cargo tonnage handled over the principal trade routes during the final 6 months of 1923 and 1922 is compared:

Trade routes.	Atlantic to Pacific.		Pacific to Atlantic.	
	1923.	1922.	1923.	1922.
United States intercoastal	1,406,152	1,069,592	5,905,142	1,378,305
United States and South America	175,781	125,420	941,820	831,139
United States and Far East	758,085	724,149	134,472	261,262
United States and Europe	213,909	172,405	593,402	664,569
United States and Australasia	286,636	201,621	16,333	30,727
Europe and South America	274,512	246,511	755,132	596,740
Europe and Canada	102,396	94,246	296,128	424,239
Europe and Australasia	232,198	175,942	117,702	135,456

These figures indicate a healthy growth of the United States intercoastal trade and of the trade of South America with both the United States and Europe. Exports from Europe to the west coast of North America have increased, but cargo moving over this route in the opposite direction has fallen off, due mainly to light grain shipments in the autumn of 1923. Exports from the United States to the Far East and to Australasia have increased, while imports have declined. There is the same situation in the case of the traffic between Europe and Australasia via the Canal.

The grand totals prove that trade through the Canal is growing at a fairly rapid rate, and there is no reason to believe that this growth will be retarded during the coming year.

Under date of November 1, 1923, a circular letter was addressed to all of the principal steamship companies using the Canal, requesting them to furnish a rough estimate of the tonnage they would dispatch via Panama in 1924. The replies were generally optimistic. While none of the lines anticipated any sensational increase of business, nearly all replied that they expected to find employment for the same tonnage as in 1923, or possibly a little more.

The only direction in which a sharp decline is likely is in the California oil trade. Oil shipments are still holding up well. They totaled 804,347 tons in December, as compared with the September peak of 909,879 tons, but this business is still regarded as transient.

UNITED STATES INTERCOASTAL TRADE.

The most important recent development in this trade has been the announcement of the American-Hawaiian Line that its services would be curtailed by the withdrawal of 6 steamers. The statement issued by the company late in December reads:

"The outlook for 1924 in coast to coast trade is not bright. We feel that the time has come to concentrate our fleet and organization on the best possible service to the shippers and consignees from fewer ports of call. We have accordingly revised our schedules to give weekly sailing between Philadelphia, Boston, and New York, and our Pacific coast ports of call both westbound and eastbound. Charleston will be served with a regular call every 3 weeks eastbound. We will no longer call at Savannah or Baltimore. Our regular express service from Boston and New York westbound will be unimpaired by these changes, and we will give Philadelphia a weekly service in both directions as against the present 2-weekly sailings. A regularity in schedules and dependability of service will be maintained as in the past. Steamers not essential to the service will be laid up, but they will be available to augment the frequency of the service, if and when cargo offerings warrant."

It is reported that the United American Lines have also reduced the frequency of their intercoastal service, and the Garland Line recently withdrew altogether from the intercoastal trade. In its issue for January 5 the San Francisco *Shipping Register* comments editorially on these withdrawals and continues: "We would not be surprised if one or two of the smaller lines would be forced to terminate their services in entirety. If not, the only possible solution seems to be in voluntary and, if possible, proportionate reductions in the tonnage of the bigger companies."

While the intercoastal situation is undoubtedly serious as viewed by individual steamship companies, the revenue of the Panama Canal from this trade is assured as long as the cargo moving in both directions continues to increase. The statistics prove that it has increased materially during the past year, quite apart from the oil trade.

The intercoastal movement of lumber shows only a slight falling off. The tonnage of lumber from the west coast of the United States (mostly intercoastal but including some foreign shipments) totaled 105,284 tons in December, as compared with a monthly average of 111,477 for the period from July to December. The total for this 6 months period in 1923 was 668,863 tons, as against 530,648 tons during the corre-

(Continued on page 370.)

CANAL WORK IN DECEMBER.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of December, 1923:

BALBOA HEIGHTS, C. Z., January 18, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of December, 1923. In it have been incorporated summaries of the record traffic through the Canal during the past calendar year.

TRAFFIC FOR CALENDAR YEAR 1923.

Commercial traffic for the year ending December 31, 1923, exceeded that of any former 12 months' period since the opening of the Canal in number of vessels, tonnage, tons of cargo carried, and amount of tolls.

Commercial traffic for the calendar year 1923 showed an increase over the preceding year of 68.07 per cent in number of transits, 82.65 per cent in tolls, 90.38 per cent in net tonnage, and 83.51 per cent in tons of cargo carried.

The following tabulation gives a ready comparison of the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo passing through the Canal during the calendar years 1922 and 1923, by months.

COMMERCIAL TRAFFIC THROUGH THE CANAL DURING THE CALENDAR YEARS 1922 AND 1923, BY MONTHS.[1]

Month.	Number of vessels.		Panama Canal net tonnage.		Tolls.		Tons of cargo.	
	1922.	1923.	1922.	1923.	1922.	1923.	1922.	1923.
January...	210	352	846,516	1,610,692	$847,767.55	$1,595,285.55	807,298	1,591,932
February..	212	326	886,535	1,529,547	866,266.18	1,423,954.21	838,074	1,563,278
March.....	234	409	975,811	1,988,192	956,726.76	1,827,718.44	960,089	1,949,928
April.....	230	404	974,833	2,007,690	953,256.11	1,878,938.15	1,046,047	2,187,145
May.....	243	419	1,032,816	2,128,414	1,015,057.37	1,972,216.04	1,158,507	2,265,083
June.....	228	417	970,713	2,035,902	932,290.42	1,898,259.08	977,478	2,096,446
Totals, first half year....	1,357	2,327	5,687,224	11,300,437	5,571,364.39	10,506,371.47	5,787,493	11,644,812
July.....	251	474	1,127,871	2,310,027	1,094,127.42	2,121,830 02	1,211,100	2,337,784
August....	257	454	1,084,133	2,232,590	1,055,336.75	2,050,655.97	1,165,950	2,168,750
September.	240	413	1,070,410	2,044,552	1,020,064.55	1,9 2 453 61	1.1 8.1[illegible]8	2,168,703
October...	294	427	1,310,392	2,139,475	1,255,508.00	1,988,607.69	1,445,863	2,127,567
November.	294	436	1,337,280	2,193,865	1,261,436.54	2,058,183 61	1,4_6.860	2,218,295
December.	304	506	1,375,263	2,516,491	1,312,570.12	2,335,729.81	1,535,102	2,494,634
Totals, second half yr..	1,640	2,710	7,305,349	13,437,000	7,002,043 38	12,469,466.71	7,923,063	13,515,733
Totals for year.....	2,997	5,037	12,992,573	24,737,437	12,573,407.77	22,966,838.18	13,710,556	25,160,545

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

COMMERCIAL TRAFFIC BY CALENDAR YEARS, 1914 TO 1923.

The following statement is a summary of the traffic through the Canal by calendar years since its opening:

Calendar year.	Number of ships.	United States tonnage.	Panama Canal net tonnage.	Registered tonnage.		Tolls.	Tons of cargo.
				Gross.	Net.		
1914 [2].....	350	(1)	1,284,293	1,789,721	(1)	$1,508,737 56	1,758,625
1915 [3].....	1,154	(1)	3,902,592	(1)	(1)	4,297,467.11	4,893,422
1916 [3].....	1,217	3,078,623	3,817,704	(1)	(1)	3,671,162.68	4,774,822
1917.....	1,960	5,116,001	6,217,054	(1)	(1)	6,107,696.63	7,413,610
1918.....	2,070	5,369,341	6,409,886	(1)	(1)	6,317,455 30	7,281,159
1919.....	2,133	5,828,118	6,943,087	7,719,306	4,919,189	6,973,095 30	7,477,945
1920.....	2,814	8,543,408	10,378,265	13,300,887	8,[illegible]58,491	10,235,362 21	11,235,119
1921.....	2,783	9,393,687	11,435,811	14,451,830	9,225,519	11,261,0[illegible]8 80	10,707,005
1922.....	2,997	10,375,771	12,992,573	16,315,147	10,310,113	12,573,407 77	13,710,556
1923.....	5,037	19,982,338	24,737,437	31,658,095	19,931,570	22,966,838.18	25.160,545
Totals.....	22,515	.....	88,118,702	.....	.....	85,972,321.63	94,446,808

[1] Indicates tonnage figures are not available. [2] Canal opened to traffic August 15, 1914. [3] Canal opened to traffic for approximately 8½ months only; closed by slides from the middle of September, 1915 to the middle of April, 1916.

NUMBER OF VESSELS TRANSITING CANAL IN 1923.

The total number of vessels and craft of all kinds transiting the Canal during the calendar year 1923, by months, is shown in the following tabulation:

	Commercial.	Noncommercial.	Launches.	Total.
January, 1923	352	20	3	375
February	326	95	4	425
March	409	106	6	521
April	404	20	16	440
May	419	13	10	442
June	417	31	7	455
July	474	18	9	501
August	454	22	7	483
September	413	27	9	449
October	427	23	20	470
November	436	25	10	471
December	506	29	16	551
Total for the year	5,037	429	117	5,583

LOSS IN TOLLS DUE TO THE DUAL SYSTEM OF MEASUREMENT.

The loss in revenue, due to the dual system of measurement on which tolls are assessed, aggregated $4,036,521.76 for the year ending December 31, 1923. If during the calendar year 1923, tolls had been assessed on the basis of Panama Canal measurement rules alone, the revenue from tolls would have been greater by the above amount, or an increase of 17½ per cent.

The introduction of the United States measurement rules as a factor in the computation is equivalent to an irregular reduction in the tolls rate under which some vessels benefit more than others. The dual system of measurement is both cumbersome and onerous, but is necessary until such time as remedial legislation can be obtained.

In the following statement the loss of revenue due to the dual method of computing tolls, is shown for the calendar year 1923, by months:

Month.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
January, 1923	$145,232.49	$149,946.60	$295,179.09
February	117,627.71	142,588.32	260,216.03
March	161,407.43	169,845.33	331,252.76
April	134,360.61	189,671.80	324,032.41
May	140,108.46	206,889.18	346,997.64
June	123,905.01	178,361.75	302,266.76
July	160,625.96	223,881.92	384,508.88
August	165,735.28	191,858.71	357,593.99
September	132,932.64	211,394.39	344,327.03
October	141,726.49	198,597.74	340,324.23
November	155,040.05	195,073.42	350,113.47
December	163,535.30	236,174.17	399,709.47
Totals, calendar year	1,742,238.43	2,294,283.33	4,036,521.76

CANAL TRAFFIC FOR DECEMBER, 1923.

Traffic through the Canal during the month of December, 1923, greatly exceeded that of any other month since its opening. Total commercial transits number 506, exceeding the previous high record of July, 1923, by 32 transits, over one a day. In addition to the above, 16 small launches, on which tolls were paid but which are not included in the commercial traffic, and 29 vessels in Government service made the transit, bringing the total transits of the Canal for the month up to 551. The average per day on the commercial transits was 16.32, and on all transits 17.77.

Tolls to the amount of $2,335,729.81 were paid on the 506 commercial transits, and $61.50 on the 16 launches, making a total toll collection for the month of $2,335,791.31, exceeding by $210,942.04 that of any previous month in the history of the Canal.

The average daily collection of tolls for the month on all traffic was $75,348.11, and on commercial traffic only was $75,346.12. These are the highest averages for any month since the Canal has been in operation.

Tabulated statement of commercial traffic for December, 1923, in comparison with commercial traffic for December, 1922, may be found in the opening pages of this report.

The total number of craft of all kinds transiting the Canal during the month of December, 1923, as compared with the same month in 1922 and 1921, is shown in the following tabulation:

	December, 1923.	December, 1922.	December, 1921.
Commercial vessels	506	304	239
Noncommercial vessels, Army and Navy	29	21	35
Launches (under 20 tons measurement)	16	3	4
Total vessels and craft through Canal	551	328	278

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	12	13	25
Pedro Miguel	28	29	57
Miraflores	20	20	40

The following is a summary of the commercial traffic for December, 1923, as compared with the corresponding month in 1922 and 1921, and the average month's traffic for the calendar year which ended December 31, 1923:

	December, 1923.	December, 1922.	December, 1921.	Average for month for calendar year 1923.
Number of vessels	506	304	239	420
U. S. equivalent tonnage	2,027,753	1,104,225	827,340	1,665,195
Panama Canal net tonnage	2,516,491	1,375,263	1,017,244	2,061,453
Registered gross tonnage	3,198,453	1,734,678	1,284,499	2,638,175
Registered net tonnage	2,013,595	1,091,432	820,431	1,660,964
Tolls	$2,335,729.81	$1,312,570.12	$1,003,598.27	$1,913,903.18
Tons of cargo carried	2,494,634	1,535,102	953,053	2,096,712

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day of calendar year 1923.
	December, 1923.	December, 1922.	December, 1921.	
Number of transits	16.32	9.81	7.71	13.8
Panama Canal net tonnage	81,177	44,363	32,814	67,774
Tolls	$75,346.12	$42,340.98	$32,374.14	$62,922.84
Tons of cargo carried	80,472	49,516	30,744	68,933

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and cargo per vessel transiting the Canal during the month of December, 1923, as compared with the corresponding month in the years 1922 and 1921, are shown in the following tabulation:

	Average per vessel.		
	December, 1923.	December, 1922.	December, 1921.
United States equivalent tonnage	4,007	3,632	3,461
Panama Canal net tonnage	4,973	4,524	4,256
Registered gross tonnage	6,321	5,706	5,378
Registered net tonnage	3,979	3,590	3,432
Tolls	$4,616.07	$4,317.66	$4,199.15
Tons of cargo (incouding vessels in ballast)	4,930	5,049	3,987
Tons of cargo (laden vessels only)	6,496	5,859	4,412

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal for the month of December for the past 4 years, indicates the great increase in traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
December, 1920	12	46,773	53,802	10	43,332	35,213	22	90,105	89,015
December, 1921	20	104,152	73,967	23	116,482	105,134	43	220,634	179,101
December, 1922	55	262,177	256,569	44	237,182	369,653	99	499,359	626,222
December, 1923	111	623,171	212,408	105	610,903	986,895	216	1,234,074	1,199,303

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-four vessels of the United States Shipping Board transited the Canal during the month of December, 1923; of these, 14 were employed in the United States intercoastal trade. Of the 24 vessels, 10 were tankers and 14 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of December for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
December, 1921	9	47,604	44,101	6	32,957	28,784	15	80,561	124,662
December, 1922	10	50,754	34,933	4	20,808	32,767	14	71,562	67,700
December, 1923	14	74,010	44,236	10	47,707	56,732	24	121,717	100,968

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of December, 1923, by principal geographical areas as compared with the same month in 1922 and 1921; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	December, 1923	December, 1922	December, 1921
Origin, Pacific-bound tonnage.			
East coast of United States	966,476	519,455	312,225
Europe (including British Isles)	318,668	164,772	198,287
Cristobal	13,123	9,426	15,601
East coast of Mexico	27,202	4,885	21,113
East coast of South America	17,074	9,156	13,070
East coast of Canada	12,870	6,096	11,590
West Indies	11,363	4,087	3,714
Miscellaneous	976	.....	69
Totals	1,367,742	717,877	575,669
Destination, Pacific-bound tonnage.			
West coast of United States	798,005	318,830	188,615
West coast of South America	191,304	187,428	116,602
Far East	145,363	80,515	136,940
Australasia	126,959	70,461	84,391
West Coast of Canada	97,616	47,527	20,914
West coast of Mexico and Central America	8,469	13,116	28,138
Miscellaneous	26	.....	69
Totals	1,367,742	717,877	575,669
Origin, Atlantic-bound tonnage.			
West coast of United States	717,783	297,955	195,969
West coast of South America	296,863	219,398	136,574
West coast of Canada	82,898	76,234	16,055
Far East	21,862	33,133	28,194
Australasia	27,146	26,301	39,616
West coast of Mexico and Central America	2,197	4,365	25,167
Totals	1,148,749	657,386	441,575
Destination, Atlantic-bound tonnage.			
East coast of United States	762,285	397,120	192,575
Europe (including British Isles)	300,232	221,338	191,277
Cristobal	23,611	15,894	17,135
East coast of Mexico and Central America	41,467	17,920	32,250
East coast of South America	12,231	.....	622
West Indies	4,071	5,114	3,622
East coast of Canada	4,752	.....	4,049
Totals	1,148,749	657,386	441,575

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of December, 1923, on commercial traffic, was $2,335,729.81. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,735,439.28, a difference of $399,709.47. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$51,759.38	$47,551.90	$99,311.28
Chilean	294.80	1,257.65	1,552.45
Colombian	[1] 0.66	.....	[1] 0.66
Danish	520.26	1,107.30	1,627.56
Dutch	5,946.65	4,752.60	10,699.25
French	779.00	2,147.75	2,926.75
German	9,918.35	8,491.30	18,409.65
Italian	1,684.30	606.25	2,290.55
Japanese	2,245.63	5,785.25	8,030 88
Jugo-Slavic	.....	1,186.85	1,186.85
Norwegian	4,565.53	4,141.80	8,707.33
Panaman	247.05	[1] 0.78	246.27
Peruvian	3,070.80	4,666.65	7,737.45
Spanish	571.40	1,243.55	1,814.95
Swedish	2,537.45	4,161.95	6,699.40
United States	79,395.36	149,074.15	228,469.51
Totals	163,535.30	236,174.17	399,709.47

[1] Indicates gain.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$56,365.49	$125,794.40	$182,159.89
United States foreign trade	22,705.96	22,751.65	45,457.61
United States to Canal Zone trade	323.91	528.10	852.01
Totals	79,395.36	149,074.15	228,469.51

Of the additional $399,709.47 that would have been assessed by using exclusively the Panama Canal rules of measurement, $13,243.20 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in December, 1923, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, December, 1923.
British	.99	1.53	1.23
Chilean	.67	1.11	1.01
Colombian	.....	1.49	1.49
Danish	1.66	1.69	1.68
Dutch	1.02	1.61	1.28
French	.64	1.34	1.12
German	.92	1.52	1.22
Italian	.21	1.62	.87
Japanese	1.64	1.18	1.39
Jugo-Slavic	.....	1.87	1.87
Norwegian	1.17	1.81	1.56
Panaman	.61	.....	.61
Peruvian	.47	.93	.67
Spanish	.05	.92	.58
Swedish	1.10	1.75	1.51
United States	.98	1.57	1.39
Average ratio, December, 1923	.98	1.55	1.32
Average ratio, December, 1922	1.03	1.53	1.30
Average ratio, December, 1921	.89	.98	.95

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.32	1.62	.94
United States and South America	.32	1.58	1.02
United States and Europe	.....	1.43	1.43
United States and Far East	1.42	.55	1.34
Europe and South America	.67	1.53	1.26
Europe and Canada	.24	1.48	.87
Cristobal, C. Z. and South America	.31	1.38	1.16
United States and Australasia	.92	.56	.86
United States and Canada	.33	1.57	.80

COMMODITY STATISTICS.

Cargo passing through the Canal in December, 1923, totaled 2,494,634 long tons, being the heaviest in the history of the Canal. Total cargo tons through the Canal in December, 1923, was about 62½ per cent greater than the amount for December, 1922, which was 1,535,102 tons. There were 734,278 tons from the Atlantic to the Pacific as compared with 560,418 tons in December, 1922, and 1,760,356 tons from the Pacific to the Atlantic as compared with 974,684 tons in December, 1922. The Atlantic to Pacific movement shows an increase of 173,860 tons and the Pacific to the Atlantic movement an increase of 785,672 tons as compared with December, 1922.

From the Atlantic to the Pacific, manufactured goods with 288,600 tons is the heaviest item, with mineral oils, crude and refined, 105,570 tons, coming next. This is an increase of 112,095 tons for this item over November, 1923, and 132,632 tons over December, 1922. Of this 288,600 tons, 95,849 tons went to the Far East, mostly to Japan.

Mineral oils made up approximately 54 per cent of the Pacific to Atlantic cargo tonnage, aggregating 915,029 tons, as compared with 909,406 tons in November, 1923, and 184,078 tons in December, 1922. Nitrates, lumber, wheat, various ores, and canned goods, in the order named, make up the next heaviest items.

The following commodity statistics are compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	December, 1923.	December, 1922.	December, 1921.
Atlantic to Pacific.			
Ammonia	10,648	3,458	11,592
Automobiles	7,774	5,589	1,635
Cement	17,542	7,136	10,809
Coal and coke	15,973	29,769	12,579
Manufactured goods:			
Iron and steel	199,495	117,034	81,168
Railroad material	55,527	18,465	7,745
Machinery	24,539	11,437	6,586
Textiles	9,039	9,032	3,892
Mineral oils:			
Crude petroleum	56,032	9,703	48,272
Lubricating	13,205	9,001	415
Refined	36,333	38,701	46,970
Metals, various	33,989	18,785	22,187
Paper	5,538	6,912	5,077
Sulphur	8,300	4,100	4,000
Other and general	240,344	271,296	254,183
Totals	734,278	560,418	517,110
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	829,714	158,855	4,723
Refined	85,315	25,223	16,165
Nitrates	272,744	159,341	59,957
Lumber	137,047	113,077	42,610
Barley	12,481	23,669	21,781
Borax	6,395	.....	.....
Canned goods	47,609	65,976	22,844
Beans	11,300	7,051	5,351
Coffee	6,489	2,225	4,529
Cold storage	8,659	.....	.....
Metals, various	33,010	28,821	10,960
Ores, various	54,383	65,700	9,805

Commodity.	December, 1923.	December, 1922.	December, 1921.
Pacific to Atlantic—continued.			
Cotton	6,147	4,074	6,660
Sugar	30,721	30,863	29,879
Wool	2,717	3,256	5,555
Wheat	95,874	92,613	35,217
Other and general	119,751	193,940	159,907
Totals	1,760,356	974,684	435,943

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of December, 1923, was published in THE PANAMA CANAL RECORD for January 9, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of December, 1923, as compared with the same month in the year 1922 and 1921:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	December, 1923.	December, 1922.	December, 1921.	December, 1923.	December, 1922.	December, 1921.
United States intercoastal	111	55	20	105	44	23
United States and South America	22	25	10	26	23	10
Europe and South America	17	17	12	35	18	19
United States and Far East	27	14	27	3	6	5
Europe and United States	24	7	15	12	10	12
Europe and Canada	13	5	4	13	14	2
Mexico and United States	.....	.....	1	5	.....	2
Europe and Australasia	9	6	8	3	5	5
United States and Australasia	9	7	5	2	1	1
Mexico and South America	5	1	2	2	4	1
Cristobal, C. Z. and South America	5	5	9	8	8	9
United States and Canada	8	5	.....	4	4	1
Miscellaneous	28	14	22	10	6	14
Totals	278	161	135	228	143	104
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	623,171	262,177	104,152	610,903	237,182	116,482
United States and South America	92,066	95,944	38,745	115,341	101,330	33,707
Europe and South America	69,844	72,316	49,830	153,761	77,104	85,435
United States and Far East	142,853	76,233	127,353	16,202	33,133	24,572
Europe and United States	109,771	31,540	63,732	53,721	41,690	62,655
Europe and Canada	60,967	27,228	20,914	62,507	76,234	10,431
Mexico and United States	.....	.....	4,903	32,013	.....	13,033
Europe and Australasia	72,030	32,368	56,151	18,583	22,833	31,395
United States and Australasia	45,292	38,093	22,746	8,563	3,468	4,127
Mexico and South America	24,692	4,885	10,362	9,554	17,920	5,051
Cristobal, C. Z. and South America	4,514	6,392	10,947	16,843	12,860	11,759
United States and Canada	32,113	20,299	.....	20,391	19,083	5,624
Miscellaneous	90,429	50,402	65,834	24,367	14,549	37,304
Totals	1,367,742	717,877	575,669	1,148,749	657,386	441,575
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	212,408	256,569	73,967	986,895	369,653	105,134
United States and South America	32,519	26,057	13,313	177,688	176,189	31,659
Europe and South America	46,764	41,511	28,989	234,311	124,802	109,202
United States and Far East	203,538	92,112	194,595	8,857	49,540	28,182
Europe and United States	38,018	.....	31,004	85,151	57,582	91,812
Europe and Canada	14,663	23,213	17,233	92,851	112,330	11,916
Mexico and United States	.....	.....	11,000	59,312	.....	.....
Europe and Australasia	61,469	24,527	40,269	18,357	23,558	32,981
United States and Australasia	41,709	40,828	27,430	4,819	5,800	1,347
Mexico and South America	48,607	9,443	18,500	.....	.....	.....
Cristobal, C. Z. and South America	1,413	2,076	2,089	23,264	7,434	7,436
United States and Canada	12,253	25,158	.....	31,914	30,818	7,284
Miscellaneous	20,917	18,924	58,721	36,937	16,978	8,990
Totals	734,278	560,418	517,110	1,760,356	974,684	435,943

LATIN-AMERICAN TRAFFIC.

This traffic shows increases over the preceding month in all respects save that of tolls collected on Atlantic to Pacific traffic. The differences are as follows: Atlantic to Pacific tolls collected, decrease $4,830.15, tons of cargo carried, an increase of 28,994; from the Pacific to the Atlantic, tolls collected, increase, $99,917.51, tons of cargo carried, 170,569. The increase in tolls collected on traffic in both directions is $95,087.36, and 199,663 in tons of cargo carried.

As compared with December, 1922, the increases are as follows: From the Atlantic the Pacific, tolls collected $21,273.74, tons of cargo carried, 46,964; from the Pacific to the Atlantic, tolls collected $123,719.45, and tons of cargo carried, 195,493.

The principal commodities from Latin-American points were nitrates, various ores, sugar, crude oil, copper, cotton and coffee in the order named. To Latin-American points the principal commodities were oil, crude and refined, various manufactured goods, and coal and coke in the order named.

Nitrate shipments from South America were 272,414 long tons as compared with 88,504 tons in November, 1923, and 81,888 tons in October, 1923.

In the tabulations below are shown the tonnage, tolls and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessels, together with total in each direction for the years 1922 and 1921:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	22	63,450	77,610	105,169	64,497	$76,389.71	75,841
Chilean	1	1,208	1,504	2,167	1,264	1,510.00	1,031
Colombian	1	22	22	27	22	16.50	.....
Danish	3	8,935	10,386	12,893	8,078	8,162.46	4,158
Dutch	2	8,043	10,504	11,422	6,801	10,053.75	10,474
German	6	16,072	23,344	26,465	16,159	20,090.00	17,034
Italian	3	10,837	12,587	16,902	10,166	13,420.10	2,698
Japanese	1	4,086	5,081	6,577	4,044	3,658.32	.....
Norwegian	3	4,628	6,350	7,412	4,676	5,785.00	3,597
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,500
Peruvian	4	8,910	11,668	17,510	10,526	11,050.80	5,541
Spanish	1	3,284	3,897	5,617	3,342	4,105.00	208
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	1,077
United States	16	53,453	62,360	87,082	53,242	52,438.77	21,816
Totals, December, 1923	65	186,348	229,251	304,807	186,534	210,955.41	144,975
Totals, December, 1922	58	167,669	211,293	273,501	167,293	189,681.67	98,011
Totals, December, 1921	52	131,175	164,366	213,863	133,282	156,141.99	119,860
Pacific to Atlantic.							
British	37	134,788	166,001	215,057	133,785	164,556.58	252,085
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,203
Colombian	1	334	335	864	614	402.00	500
Danish	1	1,709	2,460	2,686	1,692	2,136.25	4,540
Dutch	3	10,442	14,049	16,684	10,086	13,052.50	22,498
French	1	4,483	4,515	4,731	2,912	5,418.00	7,879
German	6	19,140	25,973	31,247	19,234	23,925.00	39,028
Italian	3	10,576	11,176	14,970	9,075	12,804.95	18,079
Japanese	3	12,854	14,546	18,275	12,593	16,067.50	25,579
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,930
Norwegian	6	19,368	22,522	27,895	18,616	23,748.30	42,605
Panaman	1	26	26	33	26	19.50	.....
Peruvian	4	5,182	9,271	14,323	7,446	6,458.55	8,629
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	5,642
Swedish	1	2,976	3,343	5,029	2,700	3,720.00	7,396
United States	12	43,130	52,162	65,809	42,608	53,366.15	74,303
Totals, December, 1923	83	276,015	340,918	438,904	274,522	339,434.03	520,896
Totals, December, 1922	59	179,144	223,763	292,808	181,551	215,714.58	325,403
Totals, December, 1921	54	148,770	182,195	240,108	151,148	169,551.45	154,087

Vessels of United States registry made up 53.36 per cent of the total transits of the Canal during the month, comprised approximately 58 per cent of the net tonnage, and carried approximately 57 per cent of total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in December, 1923, classified according to nationality of vessels, by directions, and the combined traffic in both directions, together with the totals for December, 1922 and 1921:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered			
				Gross.	Net.		
Atlantic to Pacific.							
British	77	305,594	376,472	477,217	297,696	$348,411.58	264,083
Chilean	1	1,208	1,504	2,167	1,264	1,510.00	1,031
Colombian	1	22	22	27	22	16.50	.....
Danish	4	13,017	14,876	16,969	10,584	11,395.26	4,158
Dutch	6	28,384	35,398	42,696	26,062	30,647.59	22,635
French [1]	3	8,809	9,659	12,244	7,635	16,311.80	6,152
German	8	21,377	30,513	34,799	21,194	26,721.25	28,137
Italian	3	10,837	12,587	16,902	10,166	13,420.10	2,698
Japanese	10	42,637	49,010	62,700	41,998	47,524.13	49,514
Norwegian	11	30,296	39,494	46,881	28,916	34,021.19	24,735
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,500
Peruvian	4	8,910	11,668	17,510	10,526	11,050.80	5,541
Spanish	3	10,376	12,465	17,089	10,203	10,273.96	208
Swedish	3	7,969	10,914	13,391	9,961	8,668.63	7,635
United States	143	611,328	760,701	969,546	611,700	623,949.84	316,251
Totals, December, 1923	278	1,102,927	1,367,742	1,733,542	1,090,090	1,186,626.38	734,278
Totals, December, 1922	161	574,251	717,877	907,121	564,475	659,185.59	560,418
Totals, December, 1921	135	468,028	575,669	720,502	459,490	571,743.49	517,110
Pacific to Atlantic.							
British	53	198,564	246,907	314,678	196,156	244,276.58	360,284
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,203
Colombian	1	334	335	864	614	402.00	500
Danish	2	6,942	8,120	9,605	6,915	8,677.50	13,741
Dutch	4	13,956	18,444	22,473	13,467	17,445.00	29,649
French	4	19,800	22,260	27,355	16,275	24,564.25	29,715
German	7	22,702	30,666	36,803	22,809	28,377.50	46,576
Italian	3	10,576	11,176	14,970	9,075	12,804.95	18,079
Japanese	7	29,375	35,420	43,700	28,877	36,718.75	41,936
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,930
Norwegian	8	27,534	31,748	39,993	26,639	33,955.80	57,517
Panaman	1	26	26	33	26	19.50	.....
Peruvian	4	5,182	9,271	14,323	7,446	6,458.55	8,629
Spanish	2	4,913	6,154	9,016	6,010	6,141.25	5,642
Swedish	3	7,913	11,711	13,419	8,740	9,891.25	20,556
United States	127	570,915	708,126	905,394	573,331	711,753.05	1,115,399
Totals, December, 1923	228	924,823	1,148,749	1,464,911	923,505	1,149,103.43	1,760,356
Totals, December, 1922	143	529,974	657,386	827,557	526,957	653,384.53	974,684
Totals, December, 1921	104	359,312	441,575	563,997	360,941	431,854.78	435,943
Combined traffic.							
British	130	504,158	623,379	791,895	493,852	592,688.16	624,367
Chilean	2	4,687	6,176	9,456	5,150	5,858.75	6,234
Colombian	2	356	357	891	636	418.50	500
Danish	6	19,959	22,996	26,574	17,499	20,072.76	17,899
Dutch	10	42,340	53,842	65,169	39,529	48,092.59	52,284
French	7	28,609	31,919	39,599	23,910	40,876.05	35,867
German	15	44,079	61,179	71,602	44,003	55,098.75	74,713
Italian	6	21,413	23,763	31,872	19,241	26,225.05	20,777
Japanese	17	72,012	84,430	106,400	70,875	84,242.88	91,450
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,930
Norwegian	19	57,830	71,242	86,874	55,555	67,976.99	82,252
Panaman	2	2,189	2,485	3,437	2,189	2,723.25	1,500
Peruvian	8	14,092	20,939	31,833	17,972	17,509.35	14,170
Spanish	5	15,289	18,619	26,105	16,213	16,415.21	5,850
Swedish	6	15,882	22,625	26,810	18,701	18,559.88	28,191
United States	270	1,182,243	1,468,827	1,874,940	1,185,031	1,335,702.89	1,431,650
Totals, December, 1923	506	2,027,753	2,516,491	3,198,453	2,013,595	2,335,729.81	2,494,634
Totals, December, 1922	304	1,104,225	1,375,263	1,734,678	1,091,432	1,312,570.12	1,535,102
Totals, December, 1921	239	827,340	1,017,244	1,284,499	820,431	1,003,598.27	953,053

[1] Includes 1 French cruiser of 11,000 tons displacement.

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
British	3	19,560	$14,083.20	2	9,554	$6,878.88
United States	73	432,247	312,088.17	.....	.....	.....
General cargo ships:						
British [1]	25	106,605	82,928.28	.....	.....	.....
Colombian	1	22	16.50	.....	.....	.....
Danish	3	12,366	8,972.76	.....	.....	.....
Dutch	2	13,132	9,663.84	.....	.....	.....
Japanese	4	18,838	13,681.71	.....	.....	.....
Norwegian	5	18,346	13,914.94	.....	.....	.....
Panaman	1	.....	.....	1	26	19.50
Spanish	2	8,568	6,168.96	.....	.....	.....
Swedish	1	3,979	2,864.88	.....	.....	.....
United States	2	6,343	4,471.49	.....	.....	.....
French cruiser	1	([2])	5,500.00	.....	.....	.....
Totals	123	631,006	474,354.73	3	9,580	6,898.38

[1] Includes 4 ships that paid tolls at laden rate on account of excess bunker coal and 1 dredge. [2] French cruiser of 11,000 tons displacement.

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of December, 1923, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
Laden	7	34,408	$37,908.65	79	478,548	$494,869.10
Ballast	76	451,807	326,171.37	2	9,554	6,878.88
General cargo ships:						
Laden	148	702,328	674,363.00	146	660,621	647,335.95
Ballast	47	179,199	148,183.36	1	26	19.50
Totals	278	1,367,742	1,186,626.38	228	1,148,749	1,149,103.43
Steamers	263	1,331,091	1,149,551.04	215	1,096,982	1,098,272.68
Barges	1	22	16.50	.....	.....	.....
Cable ship	1	950	1,140.00	.....	.....	.....
Cruiser	1	([2])	5,500.00	.....	.....	.....
Dredge	1	247	441.00	.....	.....	.....
Motor ships	8	35,027	29,517.09	10	50,939	49,833.75
Motor schooners	3	405	460.75	2	98	98.25
Sailing vessels	.....	.....	.....	1	730	898.75
Totals	278	1,367,742	1,186,626.38	228	1,148,749	1,149,103.43

[2] French cruiser of 11,000 tons displacement.

Of the 478 steam vessels, 317 were oil burners, 159 coal burners, and 2 burned either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of December, 1923. Had tolls been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	.....	.....	.....	2	[1] 6,700	$3,350.00
Subchasers	1	[1] 77	$38.50	1	[1] 77	38.50
Submarines	6	[1] 3,070	1,535.00	7	[1] 3,590	1,795.00
Subtenders	1	[1] 1,400	700.00	1	[1] 1,400	700.00
Survey ships	1	[2] 128	153.60	.....	.....	.....
Supply ships	1	[3] 3,902	4,872.40	.....	.....	.....
Transports	1	[3] 3,050	3,812.50	.....	.....	.....
Tugs	.....	.....	.....	2	[1] 2,000	1,000.00
U. S. Army vessels:						
Launches	1	[1] 10	5.00	.....	.....	.....
Mineplanter	.....	.....	.....	1	[1] 1,208	604.00
Transport	2	[2] 12,879	15,454.80	1	[2] 3,908	4,689.60
Totals	14	24,516	26,671.80	15	18,883	12,177.10

[1] Displacement tonnage. [2] Panama Canal net tonnage. [3] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	10,392
Pacific to Atlantic	9,076
Total	19,468

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statement concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	12	52	$51 00
Pacific to Atlantic	4	13	10.50
Totals	16	65	$61.50

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of December, 1923, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving, tons	34,828	41,020	75,848
Local cargo shipped, tons	4,321	381	4,702
Transit cargo arriving, tons	2,557,210	2,463,561	5,020,771
Transit cargo clearing, tons	2,565,506	2,523,999	5,089,505
Cargo received for transshipment, tons	25,135	259	25,394
Cargo transhipped, tons	22,418	62	22,400
Vessels supplied with bunker coal:			
Army vessels	2	.....	2
Commercial, other than Panama Railroad	59	8	67
Panama Railroad Steamship Co	1	.....	1
Total vessels supplied with coal	62	8	70
Coal supplied to above vessels:			
Army vessels, tons	88	.....	88
Commercial, other than Panama Railroad, tons	14,092	538	14,630
Panama Railroad Steamship Co, tons	531	.....	531
Total coal supplied to vessels, tons	14,711	538	15,249
Coal issued, miscellaneous:			
Panama Canal departments, tons	291	70	361
Panama Railroad Company, other than steamship, tons	14	5	19
U. S. Army and Navy, excepting vessels, tons	925	.....	925
Individuals and companies, tons	200	.....	200
Total coal issued from Panama Canal deposits:			
December, 1923, tons	16,141	613	16,754
December, 1922, tons	18,367	100	18,467
December, 1921, tons	25,049	367	25,416
Coal on hand, January 1, 1924, tons	87,114	.....	87,114
Coal on hand, December 1, 1923, tons	91,211	.....	91,211
Coal received during month, tons	12,044	[1] 613	12,657
Fuel oil issued from Panama Canal tanks:			
To Panama Canal departments, bbls	4,744.21	17,529.59	22,273.80
To Panama Railroad Co, bbls	736.42	342.78	1,079.20
Army and Navy, bbls	.....	572.61	572.61
Returned to Union Oil Co, bbls	.....	324.34	324.34
Total issues and sales, bbls	5,480.63	18,769.32	24,249.95
Fuel oil received during December, 1923, bbls	.....	41,369.45	31,369.45
Fuel oil inventory overage, January 1, 1924, bbls	725.28	1,055.83	1,781.11
Fuel oil on hand, January 1, 1924, bbls	40,440.84	48,859.85	89,300.69
Diesel oil sold, December, 1923, bbls	596.09	.....	595.09
Diesel oil issued to Panama Canal departments, bbls	38.20	11.78	49.98
Inventory shortage, January 1, 1924, bbls	46.35	.....	46.35
Inventory overage, January 1, 1924, bbls	.....	1.62	1.62
Diesel oil on hand, January 1, 1924, bbls	41,105.68	770.49	41,875 17
Oil pumped for individuals and companies, bbls	364,563.15	446,344.90	810,908.05
Miscellaneous transfers, bbls	334.08	19,961.97	20,296.05
Gasoline pumped for individuals and companies, bbls	.....	12,469.13	12,469.13
Gasoline pumped for Panama Canal, bbls	6,350.47	4,844.64	11,195 11
Total fuel oil and gasoline handled, bbls	377,361.62	543,771.19	921,132.81

[1] Borrowed from United States Navy.

	Cristobal.	Balboa.	Total.
Admeasurement of vessels:			
U. S. equivalent issued or made	38	10	48
Measured for Panama Canal net tonnage	12	1	13
Remeasured for Panama Canal net tonnage	25	10	35
Panama Canal net tonnage corrected	12	10	22
U. S. equivalent tonnage corrected	24	16	40
Services of harbor equipment:			
Tugs, total operating hours	478¾	436	914¾
Launches, total operating hours	1,482½	1,644½	3,127
Scows, total operating days	.....	10½	10½
Revenue from tug service, pilotage, etc.:			
Tug service	$13,021.90	$8,376.25	$21,398.15
Pilotage	14,142.00	7,286.00	21,428.00
Seamen	9,448.00	7,916.00	17,364.00
Launch service	2,476.00	3,429.00	5,905.00
Wharfage	.....	5,262.32	5,262.32
Ships measured	340.00	50.00	390.00
Miscellaneous cash collected	2,423.86	1.358.00	3,781.86
Vessels repaired at Panama Canal shops:			
Commercial	36	33	69
U. S. Army and Navy	4	13	17
Panama Canal equipment	7	19	26
Vessels dry docked:			
Commercial	2	3	5
U. S. Army and Navy	1	3	4
Panama Canal equipment	3	1	4
Clearances issued	264	300	564
Bills of health issued	272	300	572

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	556	3,507,613	2,193,758	520	3,278,596	2,070,354
Vessels entering ports but not transiting Canal	48	267,593	158,862	10	45,518	29,895
Vessels transiting Canal and handling passengers and cargo at terminals	70	399,508	241,687	58	338,496	207,397
Ships clearing.						
All vessels, including those transiting Canal	555	3,491,098	2,187,505	521	3,291,558	2,078,716
Vessels entering port but not transiting Canal	44	238,444	141,732	10	49,073	32,111
Vessels transiting Canal and handling passengers and cargo at terminals	70	398,937	241,843	59	341,097	208,911

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	1,111	765	1,876	20	25	45
From Pacific ports	124	66	190	156	198	354
Total disembarking	1,235	831	2,066	176	223	399
Embarking:						
For Atlantic ports	691	985	1,676	16	4	20
For Pacific ports	177	46	223	118	65	183
Total embarking	868	1,031	1,899	134	69	203
Remaining on board vessels:						
From Atlantic to Pacific ports	1,032	2,224	3,256	1,591	3,114	4,705
From Pacific to Atlantic ports	371	675	1,046	[1] 542	[1] 882	[1] 1,424
From Atlantic to Atlantic ports	405	52	457	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	10	74	84
Total remaining on board	1,808	2,951	4,759	[1] 2,143	4,070	[1] 6,213
Total passengers arriving	3,043	3,782	6,825	2,319	4,293	6,612
Total passengers departing	2,676	3,982	6,658	2,277	4,139	6,416

[1] Includes 11 first-class and 69 second-class passengers who arrived in December, but were left in port at end of the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to all vessels during the month of December, 1923:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$88.97	$94.44	$2,491.07	$31.23	$24.95	$2,730.66
Panama Railroad vessels	5.40	.08	1,139.92	898.14	314.60	2,358.14
Other commercial vessels	916.45	5,983.84	13,885.24	211.42	1,024.88	22,021.83
Total sales, December, 1923	1,010.82	6,078.36	17,516.23	1,140.79	1,364.43	27,110.63
Total sales, December, 1922	888.67	5,762.15	14,776.64	.....	1,976.58	23,404.04
Total sales, December, 1921	1,420.53	5,499.03	24,558.73	.....	1,676.38	33,154.67
Sales at Balboa to:						
U. S. Government vessels	314.86	1,034.89	9,358.31	143.21	4,103.97	14,955.24
Other commercial vessels	484.24	2,236.40	8,412.86	298.65	4,957.47	16,389.62
Total sales, December, 1923	799.10	3,271.29	17,771.17	441.86	9,061.44	31,344 86
Total sales, December, 1922	474.62	1,557.49	11,293.25	573.17	859.64	14,758.17
Total sales, December, 1921	349.74	3,815.83	15,697.89	2,319.83	367.94	22,551.23

The aggregate sales to Government vessels during the month were $17,685.90; to Panama Railroad vessels, $2,358.14; to other commercial vessels $38,411.45; making a grand total sales to all vessels of $58,455.49.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of December, 1923, as compared with the same month in 1922 and 1921:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Dec. 1923.	Dec. 1922.	Dec. 1921.
Gatun	225	261	486	5	6	11	497	303	248
Pedro Miguel	226	277	503	17	23	40	543	316	269
Miraflores	226	276	502	17	17	34	536	324	256
	Number of vessels put through locks.								
Gatun	241	286	527	28	27	55	582	340	306
Pedro Miguel	231	280	511	45	41	86	596	374	335
Miraflores	230	280	510	40	33	73	583	369	338

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	30	29	33
Panama Canal equipment	25	57	40

The total consumption of water for lockages, maintenance, and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,990,620,000	1,913,710,000	1,732,480,000
Leakage	30,000,000	7,630,000	20,000,000
Totals, December, 1923	2,020,620,000	1,921,340,000	1,752,480,000
Totals, November, 1923	1,828,620,000	1,650,610,000	1,474,160,000
Totals, December, 1922	1,223,470,000	1,105,770,000	979,880,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of December, 1923, are shown in comparative form:

Rainfall for month.	December, 1923.	December, 1922.	December—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	4.13	6.48	12.18	1.06	5.08
Central section	2.39	6.25	16.43	.71	5.68
Atlantic section	5.86	8.42	39.34	1.85	11.49
Maximum recorded on any one day	2.42	2.65	[1] 12.25	.....	.....
Gatun Lake watershed	2.82	7.61	26.20	1.15	5.08
Chagres River watershed above Alhajuela	3.58	8.28	37.54	1.29	8.61
Maximum recorded for month at any one point	6.74	13.45	58.17	.....	.....
Minimum recorded for month at any one point	.81	3.82	.....	.....	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	2,526	4,058	17,300	1,265	3,814
Maximum momentary discharge for the month	8,897	34,892	[2] 153,600	.....	.....
Gatun Lake watershed total yield	4,838	8,292	9,923	3,005	6,148
Gatun Lake watershed net yield	4,232	7,842	9,218	2,158	5,559
Draft on Gatun Lake for lockages and power	2,778	2,186	2,778	[3] 1,091	[3] 2,032

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying station in the Republic of Panama not included in this report. [2] December 26, 1909 (previously recorded as 170,000 c. f. s.). [3] Does not include 1914.

Due to the heavy rainfall of the latter part of October, 1923, causing changes in the bed of the Chagres River above Alhajuela, necessitating a change in the curve showing the various items, the following errors appeared in the report for November, 1923:

Discharge of Chagres River at Alhajuela, November, 1923, should read 4,657 c. f. s. instead of 6,774 c. f. s.; November mean, 4,643 c. f. s. instead of 4,739 c. f. s.

Gatun Lake watershed total yield, November, 1923, should read 15,033 c. f. s. instead of 14,708 c. f. s.; November mean, 13,608 c. f. s., instead of 13,583 c. f. s.

Gatun Lake watershed net yield, November, 1923, should read 14,668 c. f. s. instead of 14,342 c. f. s.; November mean, 13,137 c. f. s. instead of 13,112 c. f. s.

SEISMOLOGY.

Seismic disturbances were recorded on the 14th, 20th, 22d, 23d, and 24th of the month. None of these tremors were of sufficient intensity to be felt by local residents.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	December, 1923.	December, 1922.	December, 1921.
Gross output, KWH:			
Gatun hydroelectric station	4,595,700	4,549,600	4,942,900
Miraflores steam plant	.....	120	200
Power distributed to consumers.....KWH..	4,005,628	3,909,408	4,235,893
Loss of power in plants, accessories, transmission and transformers.....KWH...	590,072	640,312	707,307
Per cent of loss of power to gross output	12.84	14.07	14.30
Water consumption.....cubic feet..	3,537,277,693	3,572,276,155	3,883,984,374
Oil consumption.....barrels..	963	1,258	1,882

Forty-eight work orders covering electrical repairs and installations of electrical equipment on 36 vessels were completed during the month as well as the usual operation, maintenance and repair work.

There were 251 work orders issued for work performed by the different sections of the Electrical Division during the month, as compared with 273 during the month of November, 1923.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 47 vessels at Cristobal and 65 at Balboa. Of these 6 were placed in dry dock at Cristobal and 7 at Balboa. The more important repair work during the month included the following:

Dredge *No. 86* was dry-docked, cleaned and painted above and below water line. A new suction was installed from cutter to bow. Staybolts renewed in one boiler. Miscellaneous repairs made to main engine, dynamo engine, winding engine, fire pumps and piping.

Routine overhaul of the submarine *O–6*, and the conversion of the tug *Engineer* to oil burning were continued during the month. Dry-docking and overhaul of the submarines *O–1*, *O–9*, and *O–10* were completed.

The extensive repairs to the steamship *Amsterdam*, made necessary on account of her grounding at Santo Domingo, were completed and the vessel undocked.

The steamship *Lancaster* was placed in dry dock on account of having lost her propeller at sea. Incidental to losing her propellor, the crank shafting was wrecked. In addition to installing new propellor and shafting, sent from the United States, new pieces of shaft were forged and fitted into place. These pieces of shaft were forged from nickel steel billets 24 inches square and their forging required the full capacity of the forging press and furnace, in fact the requirement was slightly above the presumed capacity and particular care in heating and a special expedient in forging were necessitated.

Work was completed on caisson for unwatering the locks during the coming overhaul, and 4 of the 17 rising stem gate valves to be used for the same purpose turned out. These valves are made up of a framework of nickel steel I-beams of 20 inches depth, to which a working face of steel plates is riveted, the valves being rectangular in shape and measuring approximately 12 feet by 20 feet in size. Considerable trouble was experienced with the valves purchased in the United States while the locks were being built, the contractors claiming it was impossible to prevent distortion during riveting. Of the 4 valves thus far turned out by the Mechanical Division the amount of variation from true has ranged from nothing in one valve to 3/32 of an inch in the worst. It is not expected to maintain this degree of accuracy on all of these valves, but it is expected that the average error will be from one-eighth to one-fourth that of the original valves purchased in the United States.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	December, 1923.			November, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	13	676	30,683½	14	700	35,360
Steel	4	283	70,383	4	407	60,250
Nonferrous	10	610	12,380	8	637	9,793

There were 648 job orders on hand at the beginning of the month, 638 were authorized during the month, 457 were completed during the month, leaving 829 on hand at the close of the month.

There were 343 standing orders on hand at the beginning of the month, 15 were authorized during the month and none were completed, leaving 358 standing orders on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

	December, 1923.	December, 1922.	December, 1921.
Pumping stations	606,134,500	685,469,000	663,177,000
Filtration plants	373,364,000	397,091,000	391,375,000
Water consumed by Panama	93,100,000	90,626,000	90,888,000
Water consumed by Colon	52,356,500	64,251,250	42,337,000
Sales of water to vessels	10,410,937	8,392,605	10,993,100

DREDGING.

There was no movement on east and west Culebra slides in December, and Cucuracha and south Cucuracha slides were also quiescent during the month.

The slide at West Lirio (south) resumed activity on the night of December 15th, carrying about 100,000 cubic yards of material into the Canal prism. This movement extended over a frontage of 800 feet between stations 1730 and 1738 west, and was confined to the west half of the channel. The total yardage removed from this slide since October 28th is 692,460 cubic yards. Traffic was handled daily starting at 2 p. m. until the 5th, when the regular schedule was resumed. This was the only interruption of traffic during the month.

The total excavation during the month was 419,600 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
81,000	12,150	68,850	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Cascadas.*
171,000	25,650	145,350	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Paraiso.*
61,150	9,150	52,000	Maintenance.....	Gaillard Cut, west Lirio slide south.....	*Gamboa.*
9,600	9,600	.....	Maintenance.....	Gaillard Cut, Culebra slides.....	*No. 86.*
28,900	28,900	.....	Maintenance.....	Gaillard Cut, Cucuracha signal station.....	*No. 86.*
67,950	67,950	.....	Maintenance.....	Gaillard Cut, Gamboa.....	*No. 86.*
419,600	153,400	266,200			

VITAL STATISTICS.

A total of 206 deaths occurred during the month of December, 1923, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 20.03 per thousand. The leading causes of death were: pneumonia, 43; tuberculosis, 20; diarrhea and enteritis, 16; nephritis, (acute and chronic), 15; cancer (various organs), 10; and organic diseases of the heart, 6. Of the total deaths, 100, or 49 per cent, occurred among children under 5 years of age. There were 10 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 345 live births reported during the month, and 14 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 34.90 per 1,000 population. Deaths among children under 1 year of age numbered 58, giving an infant mortality rate of 168.12 per thousand live births.

The total number of malaria cases reported during the month was 70. Of these, 5 cases were from Panama City, 3 from Colon, 52 from the Canal Zone, and 10 originated outside of the Canal Zone. Of the total, 14 were employees, 24 nonemployees, and 32 were Army and Navy. There were no deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of December 31, 1923.			Comparative totals.		
	Men.	Women.	Children.	December, 1923.	December, 1922.	December, 1921.
Americans.....	2,425	1,993	2,114	6,532	6,209	6,600
Europeans.....	66	28	69	163	197	260
West Indians.....	4,003	2,550	6,050	12,603	12,522	12,723
Totals, December, 1923.....	6,494	4,571	8,233	19,298	.....	.....
Totals, December, 1922.....	6,463	4,570	7,895	.....	18,928	.....
Totals, December, 1921.....	7,372	4,529	7,682	.....	.....	19,583

WORKING FORCE.

The following tabulations show the number of gold and silver employees as of December 19, 1923, together with a comparison of the working force for the preceding month and that of December, 1922:

	As of December 19, 1923.			Total employees.	
	Gold.	Silver.	Total.	November, 1923.	December, 1922.
Operation and Maintenance:					
Office.....	27	57	84	61	60
Electrical.....	153	172	325	325	282
Municipal Engineering.....	68	447	515	506	601
Lock Operation.....	202	602	804	782	782
Dredging.....	147	892	1,039	1,069	916
Mechanical.....	410	770	1,180	1,181	865
Marine.....	168	539	707	679	557
Fortifications.....	12	25	37	69	134
Totals.....	1,187	3,504	4,691	4,612	4,197

	As of December 19, 1923.			Total employees.	
	Gold.	Silver.	Total.	November, 1923.	December, 1922.
Supply Department:					
Quartermaster	144	1,094	1,238	1,156	1,026
Subsistence	8	91	99	94	87
Commissary	169	822	991	972	917
Cattle Industry, plantations	5	118	123	140	143
Hotel Washington	8	90	98	95	93
Transportation	34	150	184	190	170
Totals	368	2,365	2,733	2,647	2,436
Accounting Department	189	8	197	197	190
Health Department	219	719	938	936	921
Executive Department	489	249	738	740	723
Totals	897	976	1,873	1,873	1,834
Panama Railroad:					
Superintendent	48	282	330	339	288
Transportation	62	104	166	178	167
Receiving and Forwarding Agent	78	1,051	1,129	969	915
Coaling stations	62	471	533	563	821
Totals	250	1,908	2,158	2,049	2,191
Grand totals, December, 1923	2,702	8,753	11,455	.....	.....
Grand totals, November, 1923	2,677	8,504	.....	11,181	.....
Grand totals, December, 1922	2,519	8,139	.....	.....	10,658

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month, as compared with the preceding month and the corresponding month in 1922, were as follows:

	December, 1923.	November, 1923.	December, 1922.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$407,093.11	$328,643.23	$201,087.56
For other Canal departments	16,379.82	8,740 21	4,007.55
Totals	423,472.93	337,383.44	205,095 11
Cash sales on the Isthmus:			
Stock	29,761 91	19,327.30	23,985 63
Fuel oil	1,413.68	113.45	1,787 43
Scrap	4,640.14	273.25	843.70
Obsolete and second-hand material	778.30	576.64	7,656 95
Totals	35,594.03	20,290.64	34,273.71

Respectfully,

M. L. WALKER,

Acting Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending January 26, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons*
Atrato	Colombia Transport Co	January 19	.....	11	175
Laura C. Hall	Pacific Metal Transport Co	January 21	January 21	20	.....
Acajutla	Pacific Steam Navigation Co	January 21	January 21	1	67
Ranenfjord	Norwegian-American Line	January 21	January 25	722	.....
Borgland	Norway-Pacific Line	January 25	January 25	1,570	.....

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 26, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Rosa	19	10.10	20	6.18	20	13.20	20	14.22	American	Grace Line	404.6	53.0	21.8	New York	San Francisco	Pipes, steel, gen.	4,600	6,754	4,780
Heluer	19	14.52	20	6.30	20	14.14	20	15.13	Dutch	Royal Netherlands W. I. Mail	372.0	50.0	20.0	Hamburg	Valparaiso	General	4,153	5,117	3,807
James McGee [1]	19	15.20	20	7.15	20	15.08	20	16.05	American	Standard Oil Co	499.1	68.2	21.0	New York	San Pedro	Ballast		10,964	7,909
Spectator	19	16.15	20	7.35	20	15.55	20	16.50	British	T. & J. Harrison	385.0	50.0	19.0	Liverpool	Vancouver	General	2,487	5,145	3,710
Cape Ann [2]	19	19.06	20	8.25	20	16.03	20	17.05	American	Cape Steamship Co	425.8	57.0	19.0	New York	San Pedro	Ballast		7,484	5,216
Pennsylvania Sun [1]	20	3.40	20	8.40	20	16.44	20	17.35	American	Sun Oil Co	480.5	66 0	23.6	Chester	Los Angeles	Ballast		9,325	6,383
Dixie Arrow [1]	20	6.15	20	9.35	20	17.11	20	18.05	American	Standard Transportation Co	468.0	62.7	22.0	Providence	Los Angeles	ballast		9,744	7,140
Hartford	20	6.30	20	9.35	20	18.38	21	11.05	British	Federal Steam Navigation Co	533.0	64.0	30.0	Falmouth	bluff	General	16,476	12.933	9,314
Aloionstar	20	6.55	20	10.50	20	18.58	20	21.55	British	Blue Star Line	450.0	58.5	19.0	Liverpool	Tacoma	Ballast		8,317	5,561
Miller County [1]	20	6.58	20	10.55	20	19.05	20	20.02	American	Sun Oil Co	431.0	59.2	17.6	Chester	San Pedro	Ballast		7,825	5,009
Albaro	19	10.15	20	11.55	20	20.45	20	21.55	Italian	La Veloce Line	321.0	49.0	19.8	Genoa	Valparaiso	General	821	3,039	2,090
Pomona	20	9.45	20	12.05	20	20.07	20	21.12	American	Weyerhaeuser Timber Co	440.0	56.0	16.6	New York	Los Angeles	General	2,400	8,300	6,026
Minnesotan	20	13.20	20	13.30	20	20.54	21	0.14	American	American-Hawaiian Line	407.0	53.7	21.0	Boston	Tacoma	General	4,754	7,150	4,913
Sailor [3]	18	.....	20	.....	20	9.20	.....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	2	2
Acajutla	10	17.53	21	6.20	21	13.45	21	17.48	British	Pacific Steam Navigation Co	215.7	33.5	15.3	Cristobal	Champerico	General	740	1,273	706
Sudawsonco	20	4.20	21	6.34	21	14.56	21	16.29	American	Transmarine Corporation	324.0	46.2	22.6	Newark	Portland, Oreg	General	4,000	3,984	2,612
Tacoma	20	15.25	21	7.00	21	15.41	21	19.40	British	Standard Transportation Co	440.5	58.7	20.0	Hamburg	Talara	Ballast		8,338	5,447
Nuolja [3]	21	23.38	21	8.52	21	16.07	21	17.35	Swedish	T. G. Oxelosund	415.0	54.0	18.0	Gothenberg	San Francisco	Ballast		7,265	5,159
Laconia	21	13.13	22	6.08	22	14.14	22	19.25	British	Cunard Line	623.0	73.6	28.2	New York	Los Angeles	Passengers only		22,156	10,057
Rangoon Maru	20	20.35	22	7.33	22	15.46	22	17.05	Japanese	Nippon Yusen Kaisha	400.0	51.0	25.6	New York	Kobe	(6)	6,278	5.559	4,166
Eldorado	21	23.30	22	7.23	22	16.19	22	20.43	American	Western Transport Co	245.6	42.0	20.0	New Orleans	Seattle	General	2,557	2,439	1,662
Eurana	22	6.20	22	8.25	22	16.58	22	22.30	American	Planet Steamship Co	400.0	56.2	26.0	Baltimore	Seattle	General, steel	8,100	7,381	5,565
Glentworth	22	7.15	22	9.30	22	17.36	22	18.28	British	Dalglish Shipping Co	450.0	55.6	15.0	Wilmington	Vancouver	ballast		7,999	5,867
Gorala	22	0.05	22	11.00	22	19.16	22	20.30	British	British-India Steam Nav. Co	400.0	52.0	25.2	New Orleans	Sydney	General	5,740	5,738	4,085
Perseus	22	6.55	22	12.30	22	19.41	23	0.31	British	Alfred Holt & Co	482.0	62.0	32.8	New York	Shanghai	General	10,700	10,906	7,525
Seatwell	22	14.40	23	6.25	23	19.13	23	20.20	British	Cairns, Noble & Co	385.0	52.0	15.0	hull	Grays Harbor	ballast		5,505	5,484
Dorothy Luckenbach	22	18.12	23	7.08	23	14.08	23	16.05	American	Luckenbach Line	473.0	60.0	24.3	New York	San Pedro	General	6,000	9,294	6,861
Steel Mariner	22	20.45	23	7.20	23	15.07	23	16.18	American	U. S. Steel Products Co	424.2	56.0	26.0	Galveston	Kobe	General	7,937	7,611	5,450
Poldna	23	6.37	23	8.30	23	16.12	23	21.10	Norwegian	Winge Co	360.7	52.0	13.0	St. Vincent	San Pedro	Ballast		5,451	3,820
Norman Monarch	23	6.55	23	8.55	23	16.57	23	18.01	British	Raeburn & Verel, Ltd	400.0	52.0	14.0	Pensacola	Iquique	Ballast		5,568	4,146
Atlantic City	23	7.15	23	9.40	23	17.27	24	12.11	British	W. R. Smith & Co	410.0	54.6	16.0	Midulesboro	San Francisco	Ballast		6,555	4,659
Blue Triangle	23	11.40	23	12.02	23	19.26	24	0.11	American	No. Atl. & Western Co. (S. B.)	390.0	54.0	17.0	Boston	Los Angeles	General	3,500	6,209	4,317
Laura C. Hall [4]	22	16.45	23	12.05	23	20.16	24	7.31	British	Pacific Metals Corporation	81.0	25.6	9.0	Cristobal	Buenaventura	General	103	132	72
Sacrafan [5]	21	20.59	23	10.10	23	17.20	25	.....	Costa Rican	A. T. Sinclair	34.0	8.8	.....	Cristobal	Puntarenas	ballast	.....	9	9
City of Bristol	23	13.40	24	6.20	24	14.01	24	15.27	British	Ellerman Line; Ltd	452.0	56.6	27.3	New York	Shanghai	Steel, gen., oil	9,386	8,044	6,102

[1] Tanker. [2] Motor ship. [3] Launch. [4] Motor schooner. [5] Yacht. [6] Steel, tinplate, iron, machinery, cotton goods, and general.

Esther Dollar..	23	15.15	24	7.05	24	14.55	24	16.05	British.....	Dollar Line.....	483.6	56.0	25.7	Suez.....	Singapore.....	General, steel...	6,885	9,873	7,140
Borgland [7].....	23	11.50	24	8.10	24	17.30	25	22.34	Norwegian..	Norway-Pacific Line.....	362.0	52.0	21.8	Christiania....	San Francisco.	General.....	4,410	5,274	3,886
William Rockefeller [1].....	23	19.00	24	9.35	24	17.58	24	19.03	American...	Standard Oil Co.....	554.9	75.3	19.0	New York....	San Pedro....	Ballast.....	.....	14,785	10,313
Nile.....	24	0.15	24	11.07	24	18.39	24	19.40	British.....	Glen Line.....	423.6	56.0	17.6	Newport News	Mejillones....	Ballast.....	.....	6,319	4,552
Cambridge.....	24	6.55	24	12.05	24	20.00	25	0.32	British.....	Federal Steam Navigation Co...	524.5	66.0	26.9	New York....	Sydney.....	General.....	6,159	11,936	8,340
Hudson.....	24	7.12	24	13.05	24	20.50	24	21.50	French.....	French Line.....	396.0	51.0	19.6	Havre.....	Talcahuano...	General.....	1,400	5,970	4,230
1st of May [8]...	.....	.....	24	.....	24	15.31	.....	.....	American...	C. Stewart.....	28.0	.....	.....	Cristobal....	Balboa.....	Ballast.....	.....	5	5
Aconcagua.....	24	5.10	25	6.05	25	13.56	25	15.05	Chilean....	Chilean Line.....	422.8	56.2	23.4	New York....	Valparaiso....	General.....	1,583	7,758	4,705
Strassa [7].....	24	13.15	25	7.15	25	14.33	25	19.02	Swedish....	T. G. Oxelosund.....	385.0	53.5	15.0	Philadelphia..	Vancouver...	Ballast.....	.....	6,282	4,322
Moorish Prince.	24	17.20	25	8.17	25	15.39	25	17.02	British.....	Prince Line, Ltd.....	425.5	56.4	27.2	New York....	Honolulu.....	General, oil....	8,009	7,629	5,707
Thos. H. Wheeler [1]....	24	20.56	25	8.59	25	16.34	25	17.35	American...	Standard Oil Co.....	425.0	57.2	18.6	New York....	San Pedro....	Ballast.....	.....	7,481	4,769
Agwisun [1].....	25	3.35	25	10.42	25	18.02	25	22.20	American...	Atl. Gulf & W. I. S. S. Co.....	429.0	59.0	18.0	New York....	Los Angeles...	Ballast.....	.....	7,612	5,402
H. M. Storey [1].	25	8.58	25	10.54	25	18.31	25	19.25	American...	Standard Oil Co.....	500.0	68.2	21.0	Baltimore.....	Los Angeles...	Ballast.....	.....	11,224	7,849
Commercial Guide.....	25	9.45	25	11.55	25	19.19	25	20.00	American...	Moore & McCormack, Inc.....	406.0	55.1	19.0	New York....	Seattle.....	General.....	2,277	6,597	4,752
Robin Adair...	25	10.25	25	12.07	25	19.47	26	1.20	American...	Seas Shipping Co.....	424.8	55.2	27.0	New York....	San Diego....	General, steel....	9,145	7,470	5,529
Port Caroline..	25	19.55	26	6.20	26	13.52	26	15.42	British.....	Commonwealth & Dom. Line....	480.0	62.0	26.0	New York....	Sydney.....	(9)	6,000	10,740	7,829
Acme [1].....	26	2.00	26	7.15	26	14.39	26	15.42	American...	Standard Transportation Co....	435.0	56.0	20.0	Providence....	San Pedro....	Ballast.....	.....	7,165	4,926
Redman.....	26	7.05	26	8.52	26	16.43	26	17.55	American...	Redman Steamship Co.....	324.0	46.2	20.0	Baltimore.....	Seattle.....	General.....	3,500	3,967	2,530
Queen Alexandria.....	25	22.40	26	21.32	26	17.06	26	18.15	British.....	Rhondda Merthyr S. S. Co.....	369.5	50.0	22.6	Antwerp.....	San Francisco.	Sand.....	5,500	.....	.....
Cape Cod [1]....	26	9.30	26	10.35	26	18.02	26	19.00	American...	Cape Steamship Co.....	425.0	57.0	18.0	New York....	San Pedro....	Ballast.....	.....	.....	.....
Huallaga.....	21	18.00	26	11.45	26	19.34	26	23.58	Peruvian....	Peruvian Line.....	360.0	44.7	21.7	Cristobal	Ilo.....	General.....	749	4,514	2,386
Sailor [8].....	25	.....	26	.....	26	8.21	.....	.....	American...	J. A. Walker.....	.....	.....	....	Cristobal.....	Gatun Lake..	Ballast.....	.....	2	2
Cuyama [1].....	19	17.55	26	14.15	.....	.....	.....	.....	American...	U. S. Navy.....	476.0	58.0	.....	Cristobal.....	Gatun Lake...	Ballast.....	.....	.....	.....

[1] Tanker. [7] Motor ship. [8] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[9] Case oil, motor cars, and general.

Ruahine.....	19	7.05	20	6.18	20	16.35	20	16.35	British.....	New Zealand Shipping Co.....	489.6	60.3	24.6	Lyttleton.....	London.....	Frozen, general..	5,019	11,292	8,266
Cardiganshire..	19	15.30	20	7.01	20	17.37	20	19.40	British.....	Royal Mail Steam Packet Co...	500.3	62.4	28.0	Vancouver....	Antwerp.....	General.....	9,954	11,420	8,385
Mongolian Prince.....	19	22.00	20	7 11	20	18.20	20	20.30	British.....	Prince Line, Ltd.....	423.5	56.0	25.6	Victoria.....	Glasgow.....	General.....	8,018	6,460	4,735
Anglo-Chilean..	20	2.00	20	8.06	20	18.48	20	18.48	British.....	Nitrate Producers Steamship Co.	470.0	58.3	29.0	Iquique.....	Norfolk.....	Nitrate.....	11,500	9,302	6,615
Ivernia.....	20	9.15	20	10.39	20	19.05	20	19.55	Swedish	N. O. & S. Atl. S. S. Co.....	274.0	41.0	19.5	Iquique.....	Mobile.....	Nitrate of soda..	2,734	2,343	1,479
William G. Warden [1]....	20	3.40	20	11.56	20	20.00	20	20.00	American...	Standard Oil Co.....	500.0	68.2	30.6	San Pedro....	New York....	Crude oil.....	15,263	10,524	7,600
Royal Star.....	20	2.30	20	12.49	20	21.10	20	21 10	British	Blue Star Line	450.0	68.0	26.0	Tacoma.....	Glasgow.....	General, lumber.	5,246	8,561	5,815
Hesperos	20	18.00	21	6.21	21	13.54	21	14.40	Norwegian..	Dupont De Namours & Co.....	389.6	64.1	26.0	Iquique.....	Savannah.....	Nitrate of soda..	8,125	5,693	4,230
Cerro Ebano [1].	20	23.30	21	7.21	21	15 55	21	15.55	American...	Huasteca Petroleum Co.....	480.5	66.0	27.8	San Pedro ...	New Orleans..	Crude oil	13,139	9,389	6,453
Superteo.....	21	1.30	21	8.20	21	16.20	21	16 20	American...	Transmarine Corporation.....	324.0	46.2	22.0	Willapa Bay..	Brooklyn.....	Lumber, talo....	3,115	3,984	2,612
Yoseric.....	21	3.15	21	8.29	21	17.55	21	19.40	British.....	Bank Line, Ltd.....	400.0	52.4	25.0	Iquique.....	Wilmington...	Nitrates.....	7,600	5,786	4,092
Jacob Luckenbach.....	21	5.00	21	9.21	21	17.45	21	17.45	American...	Luckenbach Line.....	414.5	53.7	25.0	Seattle.....	New York....	General.....	5,000	7,315	5,279
Huallaga.....	21	6.00	21	10.00	21	18.00	26	11.45	Peruvian....	Peruvian Line.....	360.0	44.7	22.8	Callao.....	Cristobal	General.....	2,592	4,514	2,386
Curaca	21	3.00	21	10.37	21	19.15	21	19.15	Panaman...	Grace Line.....	402.0	52.3	29.3	Punta Arenas.	New York....	(10)	8,948	6,804	4,897
Santa Teresa...	21	10.30	21	11.45	21	18.35	21	21.55	American...	Grace Line.....	360.2	51.6	25.6	Talcahuano...	New York....	General.....	4,218	5,726	4,086
W. M. Irish [1]..	21	10.55	21	12.57	21	21.10	21	21.10	American...	Atlantic Refining Co.....	435.0	56.0	27.0	San Pedro....	Philadelphia..	Gasoline.....	10,000	7,387	5,453

[1] Tanker.

[10] Nitrates, ores, and skins.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sacrafam No. 25	21	10.30	21	13.45	21	20.59	23	10.10	Costa Rican	A. F. Sinclair	34.0	8.8	3.0	Punta Arenas.	Cristobal			10	9
San Fraterno [1]	22	1.00	22	7.36	22	16.45	22	16.45	British	Anglo-Mexican Petroleum Co	527.3	66.6	19.6	San Pedro	Tampico	Crude oil	16,166	12,050	8,645
Laura C. Hall	21	6.00	22	7.43	22	16.45	23	12.05	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura.	Cristobal	([12])		132	72
Iowan	22	4.43	22	10.43	22	17.45	22	17.45	American	American-Hawaiian Line	407.7	53.7	19.6	Seattle	New York	General	3,458	7,091	5,002
Cathwood [1]	22	9.15	22	12.26	22	20.40	22	20.40	American	Union Oil Co. of California	435.0	56.0	28.0	Los Angeles	Baltimore	Crude oil	10,000	7,482	5,143
Salvador	22	11.50	22	13.43	22	21.43			British	Pacific Steam Navigation Co	225.0	25.4	17.4	Champerico	Cristobal	([14])	921	1,270	735
Munaires	22	17.00	23	6.13	23	13.37	23	13.37	American	Munson Line	370.0	53.1	26.0	Everett	Baltimore	Lumber, copper	6,100	5,577	4,225
Hammershus	22	18.30	23	6.50	23	16.25	23	17.15	Danish	C. K. Hansen	344.9	49.9	24.4	Calcta Colosa	St. Thomas [13]	Nitrate of soda	6,301	4,555	3,458
Bogota	22	21.00	23	7.12	23	17.07	23	21.55	British	Pacific Steam Navigation Co	400.0	52.4	25.2	Talcahuano	Hull	General	6,961	5,733	4,015
Finland	22	22.54	23	7.49	23	15.10	23	19.30	American	Panama-Pacific Line	560.0	60.2	25.6	San Francisco	New York	General	5,114	13,559	9,016
Palm Branch	23	4.45	23	8.02	23	17.40	23	19.00	British	F. & W. Ritson	360.0	45.1	25.0	Iquique	Liverpool	General	5,190	4,195	3,088
Delaware Sun [1]	23	9.50	23	10.44	23	18.45	23	18.45	American	Sun Oil Co	480.5	66.0	28.0	San Pedro	Chester, Pa	Crude oil	13,300	9,402	6,585
Takaoka Maru	23	10.15	23	11.07	23	19.00	23	19.00	Japanese	Nippon Yusen Kaisha	445.0	58.0	19.0	Kobe	New York	General	5,920	7,989	5,856
W. E. Hutton [1]	23	10.30	23	11.36	23	20.00	24	4.45	American	Pure Oil Co	435.0	56.0	27.6	Los Angeles	Chester	Crude petroleum	9,939	7,492	5,209
Robert E. Hopkins [1]	23	11.00	23	13.14	23	21.55	24	1.00	American	Tidewater Oil Co	424.4	58.2	26.2	Los Angeles	New York	Crude oil	10,000	7,333	5,244
W. C. Teagle [1]	23	11.15	23	14.18	23	23.30	23	23.30	American	Standard Oil Co. of N. J.	499.1	68.2	20.0	Los Angeles	New York	Crude oil	15,000	10,991	7,986
Henderson [11]	19	15.23	24	6.20	24	14.35	25	11.10	American	U. S. Navy	460.0	61.1	22.0	Balboa	Cristobal				
Canadian Inventor	23	11.30	24	6.48	24	15.45	24	16.55	British	Canadian Government	400.1	52.4	15.0	Melbourne	New York	General	2,000	5,916	4,113
Misalanza [1]	23	12.45	24	7.06	24	17.05	24	20.40	American	Walker & Daly (S. B.)	425.0	57.2	25.8	San Pedro	Philadelphia	Crude oil	9,920	7,205	4,897
Peter Kerr	23	21.45	24	7.38	24	17.50	24	17.50	American	United American Lines	415.0	55.7	26.0	Astoria	Baltimore	([15])	7,140	7,704	5,707
Carso	24	1.30	24	8.31	24	18.20	24	18.20	Italian	Navigazione Libera Triestina	418.8	53.9	25.0	Vancouver	Gibraltar [12]	Wheat	7,956	6,215	4,344
Huanchaco	24	2.30	24	9.02	24	18.50	24	20.10	American	Pacific Steam Navigation Co	390.6	50.2	25.4	Valparaiso	Liverpool	General	6,694	5,885	4,252
Montreal Maru	24	10.00	24	10.58	24	19.20	24	20.35	Japanese	Kawasaki Kisen Kaisha	405.0	53.0	28.0	Calcta	New Orleans	Nitrate of soda	9,165	7,034	5,081
General G. W. Goethals	24	12.05	24	13.13	24	20.20	26	13.02	American	Panama Railroad Steamship Line	353.0	48.5	23.0	Guayaquil	New York	General	1,882	5,226	3,617
Belgium Maru	24	12.30	24	14.22	24	21.58	25	2.15	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	28.3	Mejillones	Norfolk	Nitrate of soda	8,458	6,219	4,611
L. J. Drake [1]	24	14.00	24	15.01	24	22.50	24	22.50	American	Standard Oil Co. of N. J.	436.5	57.0	27.10	San Pedro	New York	Crude oil	9,000	7,406	6,062
Saint Andrew	24	14.30	25	6.24	25	16.35	25	17.50	British	Saint Line	399.0	53.0	26.0	Tocopilla	Wilmington	Nitrates	8,200	5,727	4,100
Meriones H. Whittier [1]	24	15.00	25	7.15	25	16.40	25	16.40	American	Associated Oil Co	436.6	52.2	27.6	San Pedro	Boston	Crude oil	7,000	7,426	5,128
William Green [1]	24	18.40	25	8.20	25	17.10	25	17.10	American	Pan-American Pet. & Transp. Co	430.0	58.0	27.0	San Pedro	New Orleans	Crude oil	10,000	6,973	4,670
Sachsen	24	20.10	25	9.11	25	17.55	25	17.55	German	United American Lines	468.6	58.5	27.3	San Francisco	Hamburg	General	9,704	9,624	6,732
Kambole	25	12.00	25	12.42	25	21.10	25	23.15	British	"K" Steamship Co	380.0	50.0	24.0	Antofagasta	Wilmington	Nitrates	7,000	4,970	3,498
Stad Dordrecht	25	20.00	26	6.32	26	16.00	26	17.35	Dutch	Halycon Line	340.0	49.9	23.6	Antofagasta	Fayal	Nitrates	5,535	4,283	2,961
Venezuela	26	0.01	26	7.36	26	14.40	27	10.45	Italian	La Veloce Line	420.0	51.6	25.6	Valparaiso	Genoa	General	3,396	7,622	5,051
Silverash	26	2.30	26	8.39	26	16.35	26	17.45	British	S. & J. Thompson	405.1	52.6	24.0	Tocopilla	Mobile	Nitrates	7,709		
Havana Maru	26	8.15	26	9.33	26	17.45	26	17.45	Japanese	Osaka Shosen Kaisha	407.2	50.8	17 5	Kobe, Japan	New York	([16])	1,149	6,538	4,769
Oliva [1]	26	3.30	26	11.11	26	18.55	26	21.47	British	Shell Corporation of California	412.0	53.3	25.6	San Pedro	Lands End [12]	Gasoline (bulk)	7,490	6,110	4,489

[1] Tanker. [11] Army transport. [12] For orders. [13] Platinum, value $115,889.76. [14] Coffee, sugar, hides, and general. [15] Lumber, wheat, and general. [16] Beans, porcelain, and general.

Train Schedule, Fort Randolph Branch.

PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., January 7, 1924.

All concerned.—Effective with the close of business Sunday, January 13, 1924, the following Fort Randolph Branch trains will be permanently discontinued:

	a. m.
Train No. 15, leaving 3d Street, Colon	6.58
Train No. 17, leaving 3d Street, Colon	11.00
	p. m.
Train No. 19, leaving 3d Street, Colon	1.00

	a. m.
Train No. 16, leaving Fort Randolph	8.30
Train No. 18, leaving Fort Randolph	11.30
	p. m.
Train No. 20, leaving Fort Randolph	1.30

and the following train service established effective Monday, January 14:

Leave:	a. m.	a. m.	a. m.
3d Street, Colon	6.50	10.00	11.50
7th Street	6.52	10.02	11.52
Cristobal Commissary.	6.54	10.04	11.54
Tower "B"	6.57	10.07	11.57
Half-way Siding	.....	.....	.....
			p. m.
France Field	7.03	10.13	12.03
Coco Solo station	7.09	10.19	12.09
Arrive:			
Fort Randolph	7.15	10.25	12.15
Leave:			
Fort Randolph	7.20	10.30	1.00
Coco Solo station	7.25	10.35	1.05
France Field	7.30	10.40	1.10
Half-way Siding	.....	.....	.....
Tower "B"	7.38	10.48	1.18
Cristobal Commissary.	7.41	10.51	1.21
7th Street, Colon	7.43	10.53	1.23
Arrive:			
3d Street, Colon	7.45	10.55	1.25

All other Fort Randolph Branch trains shown on present timetable (No. 36), not mentioned above, will continue in effect.

W. J. BISSELL,
Acting Master of Transportation.

Approved:
W. F. FOSTER,
Acting Superintendent.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengersor cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

MOVEMENTS OF OCEAN VESSELS.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
January 20	Heredia	United Fruit Co	New Orleans via Bocas del Toro.
January 22	San Benito	United Fruit Co	Boston via Habana.
January 22	Turrialba	United Fruit Co	New Orleans via Habana.
January 23	Carrillo	United Fruit Co	New York via Kingston.
January 24	Sixaola	United Fruit Co	Colombian ports.
January 24	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
January 24	Heredia	United Fruit Co	Bocas del Toro.
January 25	Amassia	Hamburg-American Line	Hamburg via wayports.
January 25	Ulua	United Fruit Co	New York via Habana and Jamaica.
January 25	St. Mihiel [1]	U. S. Army	New York.
January 26	Coronado	Elders & Fyffes, Ltd	Port Limon.
January 26	Orion	Royal Netherlands W. I. Mail Co.	Port Limon.
January 26	Pastores	United Fruit Co	Corinto.
January 26	Heredia	United Fruit Co	Seattle via wayports.

*DEPARTURES.

Date.	Vessel.	Line.	For—
January 20	Pastores	United Fruit Co	New York via wayports.
January 21	Heredia	United Fruit Co	Bocas del Toro.
January 23	San Benito	United Fruit Co	Boston via Port Limon.
January 24	Carrillo	United Fruit Co	Colombian ports.
January 24	Sixaola	United Fruit Co	New York via Kingston.
January 24	Turrialba	United Fruit Co	New Orleans via wayports
January 24	Heredia	United Fruit Co	New Orleans.
January 24	Seattle	U. S. Navy	High seas.
January 26	Coronado	Elders & Fyffes, Ltd	Kingston.
January 26	Amassia	Hamburg-American Line	Port Limon.
January 26	Ulua	United Fruit Co	New York via wayports.
January 26	Orion	Royal Netherlands W. I. Mail Co.	Kingston.
.....	.....	.....	.....

PORT OF BALBOA.

January 23	Rochester	U. S. Navy	Corinto.	January 26	Atrato [2]	Colombian Transport Co	Buenaventura.
January 23	Ranenfjord	Latin-American Line	Seattle via wayports.	January 26	Ranenfjord	Latin-American Line	Antofagasta.

[1] Transport.
[2] Motor ship.
* Other than ships passing through the Canal.

(Continued from page 348.)

sponding period in 1922. Commenting on the prospects for this trade in 1924, Mr. Chas. R. McCormick, president of Chas. R. McCormick & Co., is quoted by the San Francisco *Shipping Register* as saying:

"The intercoastal situation is also very encouraging, and I think the movement of lumber through the Canal to the Atlantic coast will be as large if not larger than last year. I estimate that about a billion feet were shipped in 1923. The demand for Douglas fir in that market is increasing, and a big building boom is anticipated in New York and vicinity."

CANADIAN INTERCOASTAL TRADE.

The commercial interests of British Columbia have been successful in their efforts to secure the appointment of a Canadian customs officer at New York for the inspection of Canadian products routed via that port for shipment through the Panama Canal to Vancouver, and reports indicate that several new lines are to be established in the spring for service between Montreal, Halifax, and Canadian west-coast ports.

PACIFIC NORTHWEST AND EUROPE.

Grain shipments from the Pacific Northwest to Europe are still far below the figures for the previous season. Wheat cargoes from July to December, 1923, totaled 353,700 tons, as compared with 484,467 tons in 1922. The loss has been in shipments from United States ports. Shipments from Canada increased from 110,070 tons to 162,555 tons. It is reported that there has been heavy chartering for the loading of wheat at Vancouver for Europe in January, February, and March, and the totals for the grain year may therefore equal or exceed the figures for 1922–1923.

FAR EAST.

The cargo moving from Atlantic coast ports of the United States through the Canal to the Far East in December, totaled 203,538 tons, as compared with 132,956 tons in November, and an average of 101,226 tons a month for the preceding quarter. This is in all probability due to Japanese buying of reconstruction materials, and this business is expected to increase and to continue over a period of months or even of years.

The inauguration of the Dollar Line around-the-world freight and passenger service, with an initial sailing from New York on February 7, and fortnightly sailings thereafter should stimulate American exports to the Far East. It may also have some effect on the intercoastal situation.

SOUTH AMERICA.

Nitrate shipments from Chile totaled 272,714 tons in December. This is the heaviest nitrate tonnage for any month since January, 1921, when detailed commodity statistics were started, although it may have been exceeded during the war. The unusually heavy December tonnage probably represents delayed shipments which were held up by a stevedores' strike in the loading ports from September to November.

The outlook for nitrate, copper, and South American products in general, appears bright.

A Correction.

The statement published in THE PANAMA CANAL RECORD for January 23, concerning the commercial traffic which passed through the Canal on January 14, establishing a new record for one day's business, was in error in the number of commercial vessels handled on that date, which was 25, not 26 as stated. Of these 12 were northbound and 13 southbound. The same number of commercial vessels, *i. e.*, 25, were handled on May 25, 1923. The figures quoted in the article referred to concerning net tonnage, cargo tonnage, and tolls were correct.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations must be addressed to "Ships' Mail, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Parcanal, Panama;" in the United States, "Parcanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., February 6, 1924. No. 26.

Traffic in January.

The number of commercial transits through the Panama Canal during the month of January, 1924, was 476. In addition to commercial transits, there were 14 transits of small launches on which tolls were paid but which are not taken up in the commercial transits, 89 transits of government vessels, and two transits (southbound and return) of a vessel to Balboa for repairs, making the total transits of all kinds 581, the largest since the opening of the Canal.

Tolls for the month aggregated $2,216,855.01 on the 476 commercial transits, and $37.80 on the 14 small launches, making a total tolls collection of $2,216,892.81. In number of commercial transits and amount of tolls collected, the month of January, 1924, ranks next to that of December, 1923, which is the record month for commercial traffic through the Canal.

Daily average tolls collection on all traffic for the month was $71,512.67, ranking next to December, 1923, in this respect. The daily average number of transits for all traffic was 18.74, the highest in the history of the Canal.

Detail of the month's traffic segregated by directions, is as follows:

	Vessels.					Tolls.		
	Commercial.	Launches.	Government.	Free.	Total.	Commercial.	Launches.	Totals.
Atlantic to Pacific	253	10	12	1	276	$1,087,894.08	$24.30	$1,087,918.38
Pacific to Atlantic	223	4	77	1	305	1,128,960.93	13.50	1,128,974.43
Totals	476	14	89	2	581	2,216,855.01	37.80	2,216,892.81

The following tabulation shows the monthly totals, and the daily average of transits and tolls during the fiscal year beginning July 1, 1923, for commercial vessels only:

Month.	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415 12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606 29
December	506	2,355,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45

The average amount of tolls paid by each commercial vessel transiting the Canal during January, 1924, was $4,657.26.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 2, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Santa Clara	26	16.35	27	6.06	27	13.56	27	17.50	American	Atlantic & Pacific S. S. Co	404.6	53.9	22.9	Baltimore	San Francisco	General	6,112	6,760	4,450
Bethore [1]	26	19.20	27	7.12	27	15.25	27	22.40	American	Ore Steamship Co	550.3	72.2	25.0	New York	Cruz Grande	Ballast		15,476	4,354
Nordlys	27	1.05	27	8.30	27	16.13	27	17.24	Danish	Norden Steamship Co	362.0	51.5	13.0	Newport News	Tocopilla	Ballast		4,932	3,468
Salina	27	7.35	27	13.20	27	20.11	27	21.21	Italian	Free Navigation Co	402.9	53.8	15.9	Norfolk	Vancouver	Ballast		5,457	4,000
J. R. Gordon	27	13.40	27	13.45	27	21.12	28	1.39	American	Union Sulphur Co	409.8	54.2	24.6	Sabine	San Pedro	Sulphur	7,500	6,581	4,784
Steel Trader	27	15.00	28	6.29	28	14.00	28	15.07	American	U. S. Steel Products Co	442.0	56.0	26.10	Baltimore	Seattle	General	8,562	7,611	5,450
Sabine Sun [1]	27	15.10	28	6.30	28	14.47	28	18.00	American	Sun Oil Co	429.3	59.2	20.0	Chester	San Pedro	Ballast		7,621	5,277
Pennsylvanian	27	18.15	28	7.15	28	15.14	28	20.44	American	American-Hawaiian Line	407.7	53.7	21.8	Jacksonville	San Pedro	General	4,248	7,107	4,916
Steel Maker	27	19.30	28	7.15	28	16.02	28	17.28	American	U. S. Steel Products Co	396.6	55.0	25.6	Philadelphia	Java	General	7,652	7,330	5,245
D. G. Schofield [1]	27	21.00	28	8.32	28	16.45	28	17.45	American	Standard Oil Co	439.5	58.0	20.0	New York	San Pedro	Ballast		8,698	6,013
Georgian	28	0.35	28	8.37	28	17.35	28	18.40	American	American-Hawaiian Line	386.8	52.2	19.6	Philadelphia	San Pedro	General	4,416	5,719	4,023
Pennyworth	28	2.10	28	9.40	28	17.24	28	18.30	British	R. S. Dalgliesh	410.2	53.6	17.2	South Shields	Humbolt Bay	Ballast		6,179	4,387
La Crescenta [1]	28	6.30	28	9.50	28	18.02	28	21.18	British	La Crescenta Navigation Co	400.0	53.0	17.0	Buenos Aires	San Pedro	Ballast		6,128	4,062
Antietam [1]	28	6.42	28	11.08	28	18.19	28	19.25	American	Antietam Steamship Co	435.6	56.2	21.0	New Orleans	Los Angeles	Ballast		7,426	5,094
Edgar Bowling	28	7.10	28	11.20	28	19.13	28	20.14	American	Garland Steamship Co	410.5	53.3	15.0	New York	Portland	General	1,400	6,567	4,909
Sciota [2]			28	8.47	28	15.05	28	22.30	American	U. S. Navy	156.0	30.0		Cristobal	Balboa	Ballast			
Curlew [2]			28	6.45	28	14.42	28	18.55	American	U. S. Navy				Cristobal	Balboa	Ballast			
Gipsy [3]			28		28	13.57			Panaman	A. Tagisputos				Cristobal	Gatun Lake	Ballast		3	3
Drechtdyk [4]	28	7.45	29	6.25	29	14.56	29	15.53	Dutch	Holland-American Line	485.0	62.0	24.0	Rotterdam	Vancouver	General	4,678	10,793	7,619
Hagood [1]	28	20.25	29	7.26	29	15.25	29	16.31	American	Cities Service Corporation	435.6	56.2	20.0	Boston	San Pedro	Ballast		7,426	5,094
Herakles	29	6.52	29	8.14	29	16.27	29	17.32	Norwegian	Bruusgaard & Co	390.0	54.1	17.2	Philadelphia	Callao	Explosives	200	5,680	4,220
Steel Navigator	28	11.00	29	11.10	29	17.59	29	19.12	American	U. S. Steel Products Co	424.2	56.2	25.10	Mobile	Cheritan, Java	(6)	7,782	7,611	5,454
Wido	29	11.37	29	12.00	29	19.30	29	22.15	German	Roland Line	393.7	54.4	22.0	Hamburg	Corral	General	5,323	6,585	4,631
R-26 [5]			29	8.20	29	15.22	29	18.34	American	U. S. Navy	175.0	16.7		Cristobal	Balboa	Ballast			
Bernice G. [3]			29		29	10.55			American	O. E. McCoin				Cristobal	Gatun Lake	Ballast		2	2
Francis E. Powell [1]	30	6.20	30	6.48	30	15.10	30	16.16	American	Atlantic Refining Co	431.0	59.2	21.6	Philadelphia	San Pedro	Ballast		7,860	5,101
Walter A. Luckenbach	30	3.15	30	9.40	30	16.50	30	17.50	American	Luckenbach Line	446.5	56.1	24.0	New York	Seattle	General	5,231	8,785	6,567
Santa Luisa	30	17.20	31	6.21	31	14.35	31	17.22	American	Grace Line	360.2	51.6	21.6	New York	Talcahuano	General	2,269	5,694	3,975
Otaki	30	11.50	31	6.24	31	15.05	31	16.11	British	New Zealand Shipping Co	449.1	58.0	26.9	Liverpool	Auckland	General	5,909	8,256	5,470
Lewis Luckenbach	30	17.00	31	7.24	31	15.55	31	17.03	American	Luckenbach Line	496.0	68.2	30.0	Norfolk	Bremerton	Navy coal	13,197	11,487	8,762
Arantza Mendi [4]	30	18.44	31	7.45	31	16.08	31	21.05	Spanish	Sota & Aznar	378.0	48.8	15.0	Oran	San Francisco	Ballast		4,934	3,451
Katrina Luckenbach	30	23.59	31	8.28	31	17.07	31	18.13	American	Luckenbach Line	446.0	56.0	29.0	New Orleans	Seattle	General	8,211	8,508	6,179
K.R.Kingsbury [1]	31	0.40	31	8.50	31	17.40	31	18.47	American	Standard Oil Co	440.0	58.2	22.0	Baltimore	Los Angeles	Ballast		9,033	5,938
Kroonland	31	7.43	31	9.38	31	18.05	1	1.30	American	Panama-Pacific Line	560.0	60.5	23.6	New York	San Francisco	General	1,626	13,514	9,127

[1] Tanker. [2] Tug. [3] Launch. [4] Motor ship. [5] Submarine. [6] Steel, tobacco, cotton, rosin, and wax.

Marore [1]	31	6.58	31	9.38	31	18.48	1	11.04	American	Ore Steamship Co	550.3	72.2	26.0	Baltimore	Cruz Grande	Ballast		15,551	4,297
Lake Flattery	27	23.00	31	10.50	31	19.04	1	2.57	American	Panama Railroad Steamship Line	251.0	43.0	19.9	New York	Guayaquil	General	1,110	2,873	1,776
Surichco	31	7.35	31	11.03	31	19.40	31	20.5	American	Transmarine Corporation	324.0	46.2	23.0	Newark	Seattle	General	4,000	3,984	2,612
Hessen	31	8.10	31	11.30	31	20.16	1	2.57	German	Hamburg-American Line	468.0	58.0	22.6	Hamburg	San Pedro	General	5,495	9,568	6,680
Hazel Branch	31	9.10	31	12.05	31	20.30	31	21.41	British	F. & W. Ritson	400.4	51.2	18.6	Avonmouth	Talcahuano	General	2,535	5,208	3,578
City of Eastbourne	31	8.46	1	6.08	1	13.25	1	15.55	British	Ellerman Lines, Ltd	406.2	54.0	24.7	Newport News	Sydney	General	5,630	7,465	5,612
Byron D. Benson [1]	31	14.20	1	7.18	1	13.59	1	15.00	American	Tidewater Oil Co	465.4	69.2	20.0	New York	Los Angeles	Ballast		8,546	6,095
Remuera	31	23.15	1	7.25	1	14.46	2	1.30	British	New Zealand Shipping Co	483.0	62.3	23.0	London	Wellington	General	6,007	11,717	8,751
Yayoi Maru	31	15.40	1	7.25	1	15.34	1	16.30	Japanese	Kokosai Kisen Kaisha	400.0	52.0	25.6	New York	Kobe	(9)	6,058	5,869	4,286
Chester Sun [1]	31	15.35	1	8.35	1	15.50	1	16.48	American	Sun Oil Co	429.3	59.2	21.0	Chester	San Pedro	Ballast		7,684	5,249
St. Vincent de Paul	31	12.55	1	8.42	1	16.43			French	Soc. des H. Fourneaux Noumea	237.4	36.5	15.2	New York	Sydney	General	670	1,560	1,055
Californian [7]	31	14.55	1	8.45	1	16.25	1	17.15	American	American-Hawaiian Line	445.0	59.8	20.0	Boston	Seattle	General	3,700	8,567	6,020
William Perkins	1	6.30	1	9.40	1	17.23	1	19.14	American	Garland Steamship Corporation	409.8	54.2	17.0	Norfolk	San Francisco	General	1,008	6,557	4,919
Agwistar	1	6.43	1	9.54	1	17.40	1	18.40	American	N. Y. & Cuba Mail S. S. Co	370.0	53.1	25.3	Mobile	Seattle	Iron pipe, general	6,436	5,523	4,068
Madawaska	30	21.25	1	10.45	1	19.51	1	21.01	British	Andrew Weir & Co	373.0	51.0	25.6	Newport News	Manila	General	6,400	5,481	4,174
Lehigh	1	0.20	1	10.47	1	18.06	1	22.56	American	N. Atl. & West. Co. (S. B.)	390.0	54.2	17.2	Philadelphia	Los Angeles	General	1,520	6,142	4,276
Heluan	31	4.50	1	12.05	1	20.38	1	21.53	German	Kosmos Line	440.0	52.0	20.2	Hamburg	Corral	General	1,670	7,621	5,313
Agwihavre [1]	1	6.55	1	12.05	1	19.58	1	21.01	American	Atl. Gulf & W. I. S. S. Co	480.5	66.0	24.6	Baltimore	Los Angeles	Ballast		9,394	6,305
Navarino	1	9.20	1	12.55	1	21.40	2	0.50	British	Glasgow Shipowners Co	400.1	52.0	21.9	Baltimore	San Antonio	Coal	5,295	5,770	4,182
Bethelridge [1]	1	11.21	1	12.55	1	20.34	1	21.53	American	Walker & Daly (S. B.)	431.0	59.2	21.9	New York	San Pedro	Ballast		7,819	5,076
America [8]	31		1		1	13.15			American	J. H. Stilson				Cristobal	Gatun Lake	Ballast		6	6
Salvador	22	21.43	2	6.05	2	13.11	2	16.08	British	Pacific Steam Navigation Co	215.0	33.5	16.2	Cristobal	Champerico	General	1,168	1,270	735
Lagarto [7]	1	7.25	2	6.19	2	14.15	2	19.56	British	Pacific Steam Navigation Co	385.1	52.2	25.9	Glasgow	Corral	General	5,779	5,656	3,823
Thames Maru	1	19.45	2	7.33	2	15.02	2	16.20	Japanese	Kawasaki Dockyard Co	385.0	51.0	14.6	Norfolk	Antofagasta	Ballast		5,928	4,381
Indien [7]	1	19.55	2	8.25	2	16.01	2	17.20	Danish	Orient Steamship Line	390.0	53.0	13.6	New Orleans	Tocopilla	Ballast		6,173	4,418
Texas	2	3.00	2	13.30	2	20.15	2	21.24	French	Cie Generale Transatlantique	409.0	53.0	19.0	Havre	San Francisco	General	1,714	6,824	4,885

[1] Tanker. [7] Motor ship. [8] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[9] Steel, iron, structural material, machinery, cotton, rosin, etc.

Solana [1]	26	11.20	27	6.22	27	13.45	27	13.45	American	Pacific Mail Steamship Co	419.5	56.5	27.0	Los Angeles	Fall River	Crude oil	11,367	7,060	5,025
H. M. Flagler [1]	26	14.50	27	6.45	27	14.50	27	14.50	American	Standard Oil Co. of N. J.	461.6	60.0	28.6	San Pedro	New York	Crude oil	12,215	8,450	6,089
New Britain	26	21.10	27	7.21	27	15.25	27	15.25	American	Black Diamonds S. S. Corp	376.8	52.2	24.0	Aberdeen	New York	Lumber, general	5,938	5,684	4,081
Vermont	27	5.15	27	7.50	27	17.20	28	11.30	French	Cie Generale Transatlantique	399.1	52.1	26.0	Vancouver	Le Havre	General	676	5,822	4,187
Trevarrack	27	0.30	27	8.15	27	17.45	27	17.45	British	Hain Steamship Co	400.0	52.3	25.4	Mejillones	Norfolk	Nitrates	7,300	5,801	4,076
Horace Luckenbach	27	10.25	27	11.46	27	18.40	27	18.40	American	Luckenbach Line	445.0	58.0	27.0	Seattle	Boston	General	7,592	8,626	6,290
Emidio [1]	27	7.25	27	12.30	27	20.05	27	23.50	American	General Petroleum Corporation	435.0	56.2	27.4	Los Angeles	Thameshaven	Gasoline	8,500	7,433	5,058
Manuel Calvo	27	14.30	28	6.38	28	14.25	29	18.30	Spanish	Cia Trasatlantica	435.0	48.0	21.0	Valparaiso	Barcelona	General	1,350	5,996	3,897
Seekonk	27	14.54	28	6.48	28	15.15	28	15.15	American	United American Lines	390.0	54.1	22.8	Portland	Baltimore	Lumber, general	5,028	6,162	4,463
Zenon	27	15.30	28	7.14	28	16.15	29	1.00	French	Cie Generale Transatlantique	423.4	54.9	27.0	Vancouver	Bordeaux	(10)	7,747	6,982	4,934
Halo [1]	27	14.52	28	7.51	28	16.25	28	16.25	American	Cities Service Corporation	435.0	56.0	27.5	San Pedro	Boston	Crude oil	10,000	7,434	5,093
Edward L. Doheny, Jr [1]	27	16.00	28	8.01	28	16.55	28	16.55	American	Pan.-Amer. Pet. & Transp. Co	467.6	62.7	30.0	San Pedro	New Orleans	Crude oil	14,050	9,363	6,874
Benmohr	28	7.00	28	8.00	28	18.00	28	18.30	British	Wm. Thompson & Co	399.0	52.0	22.8	Vancouver	Kingston, Ja	Wheat	6,800	5,205	3,899

[1] Tanker.

[10] Wheat, hides, lumber, and salmon.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Mevania [1]	28	6.27	28	9.37	28	18 10	28	18.10	American	C. D. Mallory & Co	425.8	57.0	26.9	San Pedro	New York	Crude oil	9,912	7,485	5,216
Saint Joseph	28	10.33	28	12.11	28	20.10	28	22.05	French	Cie Generale Transatlantique	397.8	51.5	26.0	Valparaiso	Havre	General	6,840	5,979	4,170
Hampton Roads [1]	25	12.40	28	14 35	28	23.00	29	8.30	American	McAllisters Bros. (S. B.)	431.0	59.2	26.0	Los Angeles	Baltimore	Crude oil	10,000	8,093	5,541
Steelore	28	4.20	28	19.01	29	15.55	29	16.55	American	Ore Steamship Corporation	550.3	72.2	32.6	Cruz Grande	Baltimore	Iron ore	20,000	15,551	4,297
Suboatco	28	0.30	29	7.38	29	17.10	29	17.35	American	Transmarine Corporation	324.0	46.2	21.6	Portland	Port Newark	Lumber, general	3,200	3,984	2,612
Circinus	28	17.00	29	8.21	29	17.45	29	17.45	American	Planet Line, Inc	410.0	51.2	23.9	Vancouver	Boston	Lumber, general	6,660	6,585	4,791
Tacoma [1]	28	7.30	29	9.08	29	19.20	30	4.30	British	Standard Transportation Co	440.0	58.7	29.0	Talara	Hamburg	Naphtha	8,131	8,338	5,147
Corinto	28	16.45	29	9.52	29	19.30			American	Pacific Mail Steamship Co	261.1	40.8	17.0	San Francisco	Cristobal	General	1,715	2,352	1,549
Innerton	29	21.30	30	6.21	30	14.20	30	14.20	British	Carlton Steamship Co	440.1	52.3	24.6	Portland	Channel	Wheat	7,251	5,740	4,087
Blythmoor	30	3.15	30	7.18	30	15.25	30	17.15	British	Walter Runciman & Co	420.0	51.0	28.3	Iquique	Fayal [11]	Nitrate of potash	10,109	6,963	5,098
Agwistone [1]	30	8.35	30	9.21	30	17 15	30	17.15	American	Ward Line	499.9	68.1	28.4	Los Angeles	New York	Crude oil	14,124	10,853	7,801
Aalsum	30	9.00	30	10.02	30	20.00	31	2.33	Dutch	Vinke & Co	420.2	56.2	26.2	Vancouver	Falmouth [11]	Wheat	8,500	7,460	5,130
Panaman	30	6.00	30	11.15	30	17.50	30	17.50	American	American-Hawaiian Line	407.7	53.7	20.0	San Pedro	New York	General	6,000	7,097	5,028
David McKelvy [1]	30	10.35	30	11.35	30	20.10	31	4.20	American	Tidewater Oil Co	430.0	59.2	27.0	Los Angeles	New York	Crude oil	11,000	7,629	5,393
Almelo	30	10.50	30	12.03	30	20.20	30	22.20	Dutch	Royal West India Mail	440.0	62.6	28.0	Valparaiso	Colon [11]	General	1,067	9,403	6,653
Easterner	30	9.10	30	13.14	30	21.50	30	21.50	American	U. S. & A. Line (S. B.)	385.0	51.0	20.0	Sydney	New York	([12])	1,980	5,945	4,561
Urubamba	30	15.10	31	6.18	31	16.20	4	11.15	Peruvian	Peruvian Line	381.2	45.1	20.6	Callao	Cristobal	General	2,553	4,893	2,951
Westwego [1]	30	16.30	31	6.49	31	17.30	31	21 10	American	Union Petroleum Co	387.0	51 7	25.6	San Francisco	London	Lubricating oil	6,050	5,387	3,789
Tulsagas [1]	28	1.30	31	7.07	31	17.15	31	17.15	American	McAllister Brothers (S. B.)	431.0	59.2	24.6	San Pedro	New York	Crude oil	9,100	7,817	5,048
Narenta	30	21.00	31	7.52	31	19.15	1	21.28	British	Royal Mail Steam Packet Co	450.2	58.4	24.6	Los Angeles	Glasgow	Fruit and general	5,523	8,853	6,559
Standard [1]	31	3.30	31	9.19	31	18.30	31	18.30	American	Standard Oil Co. of N. J	523.8	68.6	30.0	Los Angeles	New York	Crude oil	17,000	12,171	8,782
Frederick R. Kellogg [1]	31	3.45	31	9.27	31	19.25	31	19.45	American	Pan.-Amer. Pet. & Transp. Co	425.8	57.0	28.5	San Pedro	New Orleans	Crude petroleum	10,300	7,178	4,963
Ortega	31	4.20	31	12 30	31	20.10	1	9.50	British	Pacific Steam Navigation Co	465.0	56.0	26.4	Punta Arenas	Liverpool	General	6,099	8,345	4,998
Trelevan	24	11.45	31	13.31	31	22.00	1	8.30	British	Hain Steamship Co	397.4	54 9	19.0	Sydney	New York	General	3,000	6,102	4,334
Garfield	31	5.30	31	14.51	31	22.42	1	12.06	American	Grace Line	299.4	45 0	17.0	Pacasmayo	New York	General	1,276	3,256	3,010
George Allen	31	14.25	1	6.27	1	14.15	1	14.15	American	Garland Steamship Corporation	383.8	51.2	27.0	San Francisco	New York	([13])	5,457	6,224	4,465
Oak Branch	31	9.15	1	7.25	1	17.05	1	17.05	British	F. & W. Ritson	385.0	49.9	23.10	Coronel	Liverpool	Nitrate, sugar	6,350	5,209	4,035
West Jappa	31	13.50	1	7.48	1	17.40	1	17.40	American	Swayne & Hoyt, Inc. (S. B.)	410.5	54.2	29.0	Portland	Buenos Aires	General, lumber	2,095	6,755	4,873
Yorba Linda [1]	1	6.51	1	8.48	1	18.20	1	18 20	American	General Petroleum Corporation	435.0	56.2	27.6	San Pedro	Philadelphia	Distillate oil	9,000	7,421	5,077
Alvarado	1	2.09	1	10.37	1	18.50	1	20.30	American	Swayne & Hoyt, Inc	245.0	11.5	14.0	Anacosta	New Orleans	General	1,594	2,122	1,504
Sicania	31	13 05	1	11 19	1	19 55	2	15.40	Italian	Antonio Bragur [b]	338.9	46.2	25.2	Valparaiso	Genoa	General	4,812	4,500	3,523
Middlesex	31	19.15	1	13.07	1	22.05	2	0.31	British	Federal Steam Navigation Co	460.0	62.8	24.0	Auckland	London	Frozen, general	6,566	10,600	7,641
Naimes	31	20.45	2	6.30	2	14.17	2	21.45	German	Roland Line	305.0	45.0	18.4	Port Angel	Hamburg	Coffee, wood	1,709	3,529	2,532
Imlay [1]	1	15.35	2	6.48	2	15.25	2	15.25	American	C. D. Mallory & Co	425.8	57.0	26.6	San Pedro	Baton Rouge	Crude oil	10,200	7,218	4,959
Sumanco	1	20.45	2	7.17	2	16.40	3	6.40	American	Transmarine Corporation	324.0	46.2	22.3	Seattle	Port Newark	Lumber	3,375	3,981	2,612
I. C. White [1]	1	22.30	2	8.03	2	18.20	2	18.20	American	Pan.-Amer. Pet. & Transp. Co	430.0	59.0	28.6	San Pedro	New Orleans	Crude oil	11,085	7,925	5,840

[1] Tanker.

[11] For orders.

[12] Wool, skins, and general.

[13] Lumber, laths, shingles, and tobacco.

T. J. Williams [1]	2	3.10	2	8.25	2	17.53	2	17.53	American...	Standard Oil Co. of N. J.....	465.4	60.2	27.6	San Pedro	New York....	Crude oil.....	11,900	8,585	6,087
Cape Town Maru.....	2	8.00	2	9.07	2	19.35	2	23.50	Japanese....	Kokusai Kisen Kaisha.....	385.0	51.0	26.6	Vancouver	Gibraltar [14]...	Wheat in bulk...	7,582	6,209	4,658
Munrio.....	2	9.55	2	11.25	2	19.20	2	19.20	American...	Munson Line.....	333.6	48.2	21.0	San Francisco	Baltimore.....	Lumber, general.	3,872	4,165	3,066
Mobile City....	2	14.15	2	14.56	2	22.12	2	22.12	American...	Isthmian Line.....	395.5	55.0	28.6	Seattle.....	Boston.....	Lumber, general.	7,600	7,330	5,241

[1] Tanker. [14] For orders. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 27..	Ulysses.....	Panama Railroad Steamship Line..	Norfolk.	January 27.	Cartago.....	United Fruit Co.....	Port Limon via Bocas del Toro.
January 27..	Cartago.....	United Fruit Co.....	New Orleans via Habana.				
January 29..	Stuyvesant.....	Royal Netherlands W. I. Mail....	Amsterdam via wayports.	January 28.	St. Mihiel [15].....	U. S. Army.....	New York via San Juan.
January 30..	Camden.....	United Fruit Co.....	Houston.	January 29.	Gen. W. C. Gorgas...	Panama Railroad Steamship Line..	New York.
January 30..	Tivives.....	United Fruit Co.....	New Orleans.	January 30.	Stuyvesant.....	Royal Netherlands W. I. Mail Co.	Port Limon.
January 30..	Cartago.....	United Fruit Co.....	Port Limon via Bocas del Toro.	January 30.	Cartago.....	United Fruit Co.....	New Orleans via Habana.
				January 31.	Carrillo.....	United Fruit Co.....	New York via Kingston.
January 30..	Santa Marta.....	United Fruit Co.....	New York via Kingston.	January 31.	Ulysses.....	Panama Railroad Steamship Line..	Norfolk.
January 31..	Carrillo.....	United Fruit Co.....	Colombian ports.	January 31.	Santa Marta.....	United Fruit Co.....	Colombian ports.
January 31..	Orca.....	Royal Mail Steam Packet Co.....	New York via wayports.	January 31.	Tivives.....	United Fruit Co.....	New Orleans via wayports.
January 31..	Perou.....	French Line.....	St. Nazaire via wayports.	January 31.	Camden.....	United Fruit Co.....	Bocas del Toro.
February 1..	Toloa.....	United Fruit Co.....	New York via wayports.	February 1.	Orca.....	Royal Mail Steam Packet Co.....	Cartagena.
February 1..	Empress of Britain...	Canadian Pacific Steamship Co....	New York via wayports.	February 2.	Perou.....	French Line.....	St. Nazaire via wayports.
February 2..	Panama.....	Panama Railroad Steamship Line..	New York via Haiti.	February 2.	Empress of Britain...	Canadian Pacific Steamship Co....	Cartagena.
February 2..	San Bruno.....	United Fruit Co.....	Boston via wayports.	February 2.	San Bruno.....	United Fruit Co.....	Boston.
February 2..	Stuyvesant.....	Royal Netherlands W. I. Mail.....	Port Limon.	February 2.	Toloa.....	United Fruit Co.....	New York via wayports.

[15] Transport.

PORT OF BALBOA.

January 27..	El Lobo [1].....	Lobits Oil Field, C. T. Bowring....	San Pedro.	January 30.	El Lobo [1].....	Lobits Oil Fields, C. T. Bowring...	San Pedro.
January 27..	Utacarbon [1].....	Union Oil Co. of California.....	Port San Luis.	January 30.	Utacarbon [1].....	Union Oil Co. of California.....	San Pedro.
January 29..	Anomia [1].....	Anglo-Saxon Petroleum Co.....	San Pedro.	February 1.	Anomia [1].....	Anglo-Saxon Petroleum Co.....	San Pedro.

[1] Tanker.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in January, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
United States intercoastal:							
United States	103	475,650	589,834	753,141	472,787	$483,802.91	234,037
From United States to South America:							
British	4	14,688	18,947	24,305	15,148	15,130.90	2,459
Chilean	2	6,991	9,377	14,620	7,952	8,738.75	3,085
Danish	1	2,256	3,468	3,718	2,307	2,496.96	.....
Japanese	1	4,348	4,700	5,873	4,254	3,384.00	.....
Norwegian	4	10,525	12,956	15,606	9,586	11,375.56	5,210
United States	10	29,733	35,476	53,078	29,624	30,893.75	13,213
Totals	22	68,541	84,924	117,200	68,871	72,019.92	23,967
From Europe to the United States:							
British	13	44,695	56,989	72,314	44,570	44,769.55	5,500
Danish	1	3,142	4,066	5,177	3,199	2,927.52	.....
Dutch	2	9,641	11,871	15,629	9,722	8,547.12	.....
Norwegian	2	6,701	8,021	9,195	5,660	6,730.95	4,410
Swedish	2	7,554	10,860	12,506	9,317	8,000.78	8,262
United States	3	12,081	16,072	19,789	12,196	12,124.67	4,653
Totals	23	83,814	107,879	134,610	84,664	83,100.59	22,825
From the United States to Far East:							
British	8	40,868	57,251	67,665	42,226	51,085.00	55,633
Japanese	7	28,861	33,824	43,370	28,435	35,895.40	51,730
Norwegian	1	1,841	2,086	2,903	1,850	2,301.25	3,292
United States	9	39,732	51,594	60,476	39,535	49,665.00	75,254
Totals	25	111,302	144,755	174,414	112,046	138,946.65	185,909
From Europe to South America:							
British	6	22,135	27,846	35,942	22,396	24,869.89	15,037
Chilean	1	739	1,371	1,348	747	923.75	1,025
Dutch	2	6,489	10,451	10,567	6,469	8,111.25	13,146
French	2	7,883	8,376	10,707	6,673	9,576.00	3,721
German	4	12,829	17,998	20,923	12,811	16,036.25	17,404
Italian	1	2,008	2,090	2,850	1,675	2,508.00	821
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	196
Totals	17	55,043	71,861	86,977	53,492	65,725.14	51,350
From Europe to Canada:							
British	8	30,292	38,459	47,586	30,365	33,875.58	15,148
Danish	1	4,223	5,338	6,650	4,247	5,278.75	6,890
Dutch	1	5,763	7,619	9,338	5,808	7,203.75	4,678
German	2	8,022	10,535	13,097	7,916	10,027.50	8,413
Italian	1	3,556	4,090	5,794	3,590	2,944.80	.....
Totals	13	51,856	66,041	82,465	51,926	59,330.38	35,129
From United States to Australasia:							
British	8	36,900	47,296	58,993	36,922	46,125.00	44,157
From United States to Canada:							
British	1	3,468	5,867	5,677	3,510	4,224.24	.....
Italian	1	4,001	4,000	5,345	3,349	3,000.75	.....
Japanese	1	4,147	5,136	6,577	4,112	3,697.92	.....
Norwegian	1	2,096	2,070	2,733	1,679	1,572.00	.....
Swedish	1	3,231	4,322	5,650	4,163	3,111.84	.....
Totals	5	16,943	21,395	25,982	16,813	15,606.75	.....
From Europe to Australasia:							
British	5	30,014	37,948	47,051	29,530	37,517.50	39,054
From Cristobal to South America:							
British	3	740	766	1,360	802	618.00	189
Peruvian	2	2,193	4,791	7,708	3,604	2,741.25	1,611
Totals	5	2,933	5,557	9,068	4,406	3,359.25	1,800
From Cristobal to Central America:							
British	3	1,900	2,063	3,436	1,906	2,353.90	1,629

ATLANTIC TO PACIFIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From South America to United States:							
British	1	3,579	4,062	5,880	3,531	$2,924.64	.....
United States	2	8,995	9,705	12,054	8,227	8,973.65	6,055
Totals	3	12,574	13,767	17,934	11,758	11,898.29	6,055
From Cristobal to United States:							
United States	2	2,986	3,756	4,796	2,963	3,732.50	2,442
South American intercoastal:							
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	252
United States	1	230	240	514	230	172.80	.....
Totals	2	1,745	3,199	5,131	2,657	2,066.55	252
From West Indies to United States:							
Dutch	1	5,249	5,854	7,698	4,892	4,214.88	.....
Norwegian	1	2,333	3,820	3,886	2,335	2,750.40	.....
Totals	2	7,582	9,674	11,584	7,227	6,965.28	.....
From Africa to Canada:							
British	2	7,978	11,162	12,837	8,067	8,036.64	.....
From Mexico to United States:							
United States	2	10,616	11,340	13,798	8,572	8,258.55	.....
From Canada to Australasia:							
British	2	9,650	10,790	14,172	9,697	11,858.95	8,509
Foreign vessels in ballast—U. S. intercoastal:							
Danish	1	2,707	4,569	4,465	2,730	3,289.68	.....
Norwegian	1	1,444	1,553	2,367	1,419	1,805.00	126
Totals	2	4,151	6,122	6,832	4,149	5,094.68	126
From Mexico to Far East:							
Danish	1	1,715	2,166	2,925	1,748	2,143.75	3,557
From West Indies to Canada:							
British	1	.....	53	286	.....	(1)	.....
Canadian intercoastal:							
British	1	3,611	4,999	5,704	3,531	4,513.75	7,700
From east coast of South America to Canada:							
British	1	3,188	4,144	5,221	3,189	2,983.68	.....
From Africa to United States:							
Spanish	1	2,172	3,451	3,721	2,049	2,484.72	.....
From South America to Far East:							
Japanese	1	3,645	4,230	5,761	3,556	4,556.25	4,014
From Mexico to South America:							
British	1	4,330	4,831	7,337	4,286	5,412.50	9,800
Totals, January, 1924	253	1,010,839	1,273,237	1,611,376	1,006,812	1,087,894.08	682,312
Totals, January, 1923	194	733,893	923,778	1,167,899	725,623	827,022.39	598,743
Totals, January, 1922	125	416,527	513,764	646,371	420,419	516,256.62	493,591

(1) Free.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	99	449,888	554,407	705,496	448,338	$557,348.70	909,307
South America to United States:							
British	13	43,501	55,204	70,347	43,995	54,376.25	91,700
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,230
Danish	2	4,930	6,531	8,029	4,918	6,162.50	12,740
German	1	3,925	4,082	5,463	3,960	4,906.25	5,220
Japanese	3	12,617	14,397	18,285	12,529	15,771.25	26,135
Norwegian	2	6,822	8,960	10,924	6,842	8,527.50	18,125
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,948
Swedish	1	1,257	1,479	2,160	1,554	1,571.25	2,734
United States	10	35,356	42,067	62,173	35,379	44,301.35	99,663
Totals	34	115,934	142,322	191,077	117,220	145,023.85	270,495

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
From South America to Europe:							
British	11	42,479	54,309	69,101	42,797	$53,098.75	81,056
Dutch	3	9,732	11,659	15,649	9,724	12,165.00	15,659
French	2	7,269	8,336	11,614	7,401	9,086.25	13,618
German	2	6,564	9,015	10,902	6,589	8,205.00	15,526
Italian	1	4,051	5,051	7,028	4,175	5,063.75	3,396
Spanish	3	9,576	10,668	14,695	10,086	11,870.30	14,850
Swedish	1	3,338	5,014	5,391	4,048	4,172.50	9,340
Totals	23	83,009	104,052	134,380	84,820	103,661.55	153,445
From Canada to Europe:							
British	6	25,527	32,178	40,890	25,712	31,908.75	49,529
Danish	1	4,257	5,341	6,650	4,247	5,321.25	9,151
Dutch	1	5,035	5,430	5,422	2,205	6,293.75	8,500
French	2	6,572	9,121	10,565	6,399	8,215.00	14,508
German	1	2,620	4,023	4,453	2,621	3,275.00	6,300
Italian	1	3,768	4,344	6,275	3,955	4,710.00	7,956
Japanese	3	12,764	13,815	18,306	12,542	15,596.75	22,814
Spanish	1	3,478	4,396	5,514	3,474	4,347.50	8,000
United States	2	6,625	9,903	10,821	6,636	8,281.25	14,805
Totals	18	70,646	88,551	108,896	68,791	87,949.25	141,503
From United States to Europe:							
British	6	25,579	30,853	40,716	24,756	31,973.75	44,016
Dutch	1	5,776	7,551	9,899	5,814	7,220.00	10,110
German	1	4,909	6,732	8,109	4,883	6,136.25	9,704
United States	2	7,436	8,847	12,148	7,593	9,295.00	14,550
Totals	10	43,700	53,983	70,872	43,046	54,625.00	78,380
From South America to Cristobal, C. Z.:							
British	3	740	766	1,360	802	903.90	614
Dutch	1	4,250	6,653	6,899	4,417	5,312.50	10,067
Peruvian	3	4,225	8,296	13,764	7,790	5,281.25	8,154
Totals	7	9,215	15,715	22,023	13,009	11,497.65	18,835
From Far East to United States:							
French	1	4,408	5,454	7,202	4,418	5,510.00	6,145
Japanese	2	7,946	10,625	12,658	7,778	9,932.50	7,060
United States	2	10,710	12,819	12,623	12,403	13,387.50	11,087
Totals	5	23,064	28,898	32,484	24,599	28,830.00	24,292
From Canada to United States.							
British	2	15,003	19,983	26,734	16,131	18,753.75	7,330
United States	2	7,548	10,024	12,272	7,601	9,435.00	11,855
Totals	4	22,551	30,007	39,006	23,732	28,188.75	19,185
From Australasia to United States.							
British	4	12,673	16,094	20,318	12,683	15,841.25	10,866
United States	1	4,530	4,561	5,840	4,497	5,473.20	1,980
Totals	5	17,203	20,655	26,158	17,180	21,314.45	12,846
From United States to Mexico.							
British	3	23,282	26,902	36,843	23,143	29,102.50	49,200
From Canada to West Indies:							
British	2	6,196	7,972	9,854	6,221	7,745.00	13,902
From Australasia to Europe:							
British	3	17,884	21,808	28,451	18,037	22,355.00	16,535
From United States to Cristobal, C. Z.:							
British	1	4,418	5,127	6,981	4,420	5,522.50	9,058
United States	2	2,499	3,142	4,127	2,470	3,123.75	3,007
Totals	3	6,917	8,269	11,108	6,890	8,646.25	12,065
From Central America to Cristobal, C. Z.:							
British	2	1,286	1,441	2,298	1,304	1,607.50	1,921
From South America to Mexico:							
British	2	8,164	9,269	13,568	8,207	6,673.68	.....

PACIFIC TO ATLANTIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
From South America to Canada:							
British	1	3,988	4,713	7,115	3,943	$4,985.00	9,446
From South America to West Indies:							
Danish	1	3,112	3,458	3,939	2,510	4,149.60	6,301
From Far East to Europe:							
Japanese	1	4,361	4,381	5,873	4,254	5,257.20	7,272
Totals, January, 1924	223	910,700	1,126,803	1,449,441	915,241	1,128,960.93	1,745,020
Totals, January, 1923	158	547,513	686,914	862,347	541,358	678,263.16	993,189
Totals, January, 1922	85	272,508	332,752	423,469	271,229	331,510.93	313,707

Ships at Canal Repair Shops.

The following list of vessels called at Balboa Shops since the last report, dated December 22:

Steamships *City of Dunedin*, dismantle, manufacture follower plates, studs, etc., and reassemble valve and valve gear on H. P. engine; *Agwipond*, repair and repack main condensor; braze feed water pipes; *Steelore*, install cement bulkhead in way of damaged plate, No. 1 deep tank; *Sutorpco*, remove, repair, and reassemble ice machine crank shaft; fit bearing to compressor; weld connecting rod; *C. H. Livingstone*, furnish services of diver and outfit to examine bottom; install cement bulkhead in bow peak tank; repair telemotor gear, anchor windlass, and miscellaneous tools; remove coupling bolts between thrust shaft and crank shaft, line up shafting; manufacture and fit new coupling bolts; remove and replace all equipment in wake of repairs; *Volunteer*, open up main turbine casing for examination; fit bearings to high speed pinion, stone journals, and take clearance of all high speed bearings; repair feed pump, bilge pump, sanitary pump, and air compressor; *Eastern Planet*, manufacture new cylinder head piston and one brass liner; straighten connecting rod, and reassemble all parts on blower engine; collier *Ulysses*, dock and undock; clean, scale, and paint underwater body; repair leak in starboard forward deep tank, and after peak tank; strengthen deck and install patches on bow, repack stern gland, test propeller blade nuts, install zinc plate on propeller head, examine and renew all loose and bad order rivets on underwater body, repair windlass and steam and exhaust pipe.

Minor repairs.—Motor schooner *Laura C. Hall*, steamships *Akera*, *Argosy*, motor ship *Atrato*, steamship *Ranenfjord*.

Previously reported—Colombian coast guard cutter *No. 3*, launch *L–55*, steamship *Colon*.

The following vessels were at the Cristobal shops for repairs during the two weeks ended February 4:

Steamship *Salvador*, drydock, clean, and paint bottom; repair anchor chain pipe, skylight, pipe for forepeak handpump, sanitary pump cylinder, winch pipe, sanitary pipe, cargo gin blocks, plumbing and accomodation ladder; manufacture two tarpaulins, piston rings for dynamo engine, and compressor rod for refrigerating machine, etc.; tug *Tavernilla*, dry dock, clean, paint, raise rudder, and draw tail shaft for examination; repair hose fittings, maine engine, valve gear of small generator, circulating pump, fire pump, fuel oil pumps, capstan engines, anchor windlass, piping, voice tubes, forestay on foremast, scuppers, main rail on lower deck, ice box drain, bitumastic in fire room bilges and deck house ports; overhaul generator turbines, valve motion of main air pump, sea valves, and bell pulls; clean and test main condenser; scale boilers and refasten fender guards, etc.; steamships *Ulysses*, grind off shoulder of H. P. cylinder; clean main condenser and boilers; repair main circulating pump, piping, ports, and pipe conduit; continue scaling and cement washing top side tanks, etc.; *Lake Flattery*, repair dynamo engine, main feed pump, auxiliary feed pump, and shaper guides; drill holes in deck for installation of hand pump over after peak tank, also drill and tap after peak bulkhead in shaft alley; complete lagging of H. P. cylinder; clean after peak tank for use of fresh water; furnish and install 4 new eye pads on deck as directed, etc.; *Panama*, rebore valve chamber of air pump

and manufacture new rings for same; repair No. 4 starboard winch, steam pipe to anchor engine, pipes on brine tank, fresh water filling line, fire tools, and chisels, steel deck in starboard upper bunker, ash buckets, between deck stanchion, motor boat, and steel deck No. 2 between decks; renew ash guards and starboard topmast back stay on foremast, etc.; *Camden*, manufacture full set of clips and brackets for fire line, anchor shackle, new suction for auxiliary engine as sample, butcher's block, and make and fit new lower part for galley stack; repair storm doors, etc.; *Stuyvesant*, manufacture one set of H. P. rings, 4 grate bars, one valve stem, 6 copper pipes; repair plumbing, galley skylight operating gear and port side gangway; manufacture and install eight $\frac{5}{8}$-inch plates in forepeak No. 1 hold.

Minor repairs—Steamships *Huallaga* and *General W. C. Gorgas*, schooner *Arabia* and U. S. S. submarine *S–26*, steamships *Hampton Roads*, *Orca*, *Lagarto*, *Corinto*, *Narenta*, *A. C. Bedford*, and *Jason*, yachts *Gloriana*, and *Silver Star*, and launch *Dalia*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending February 2, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Albaro	Italian Line	.....	January 20...	.....	13
Santa Rosa	Grace Line	.....	January 20...	.....	447
Pastores	United Fruit Co	.....	January 20...	.....	127
Heredia	United Fruit Co	January 20...	January 21...	307	294
Santa Teresa	Grace Line	January 21...	January 21...	10	(4)
Huallaga	Peruvian Line	January 21...	January 26...	2,641	750
Turrialba	United Fruit Co	January 22...	January 24...	837	53½
Laura C. Hall	Pacific Metals Corporation	January 22...	January 23...	(1)	103
San Benito	United Fruit Co	January 22...	January 23...	17	366
Salvador	Pacific Steam Navigation Co	January 22...	.....	923	.....
Borgland	Norway-Pacific Line	January 23...	January 24...	270	(4)
Carrillo	United Fruit Co	January 23...	January 24...	103	381
General W. C. Gorgas	Panama Railroad Steamship Line	January 24...	.....	1,640	.....
Sixaola	United Fruit Co	January 24...	January 24...	(2)	77
Heredia	United Fruit Co	January 24...	January 24...	6	½
Hudson	French Line	January 24...	January 24...	79	(4)
General G. W. Goethals	Panama Railroad Steamship Co	January 24...	January 26...	830	173
Amassia	Hamburg-American Line	January 25...	January 26...	493	459
Ulua	United Fruit Co	January 25...	January 26...	280	163
Coronado	Elders & Fyffes, Ltd	January 26...	January 26...	14	(4)
Santa Clara	Pacific Mail Steamship Co	January 26...	.....	200	.....
Santa Clara	Pacific Mail Steamship Line	.....	January 27...	.....	109
Cartago	United Fruit Co	January 27...	January 27...	77	68
Lake Flattery	Panama Railroad Steamship Line	January 27...	January 31...	507	37
Drechtdijk	Holland-American Line	January 28...	January 29...	138	397
Manuel Calvo	Spanish Line	January 28...	January 29...	119	423
Gen. W. C. Gorgas	Panama Railroad Steamship Line	.....	January 29...	.....	2,751
Stuyvesant	Royal Netherlands W. I. Mail	January 29...	January 30...	100	(4)
Corinto	Pacific Mail Steamship Co	January 29...	.....	1,743	.....
Camden	United Fruit Co	January 29...	January 31...	8,816	(4)
Tivives	United Fruit Co	January 30...	January 31...	770	165
Cartago	United Fruit Co	January 30...	January 30...	2	10
Santa Marta	United Fruit Co	January 30...	January 31...	163	57
Santa Luisa	Grace Line	January 30...	January 31...	1	½
Carrillo	United Fruit Co	January 31...	January 31...	(3)	29
Garfield	Grace Line	January 31...	February 2...	234	(4)
Urubamba	Peruvian Line	January 31...	.....	2,555½	.....
Perou	French Line	January 31...	.....	259	532
Narenta	Pacific Steam Navigation Co	January 31...	February 1...	(2)	480
Ortega	Pacific Steam Navigation Co	January 31...	February 1...	(2)	1¼
Salvador	Pacific Steam Navigation Co	.....	February 2...	.....	1,184
Toloa	United Fruit Co	February 1...	February 2...	220	124
Lagarto	Pacific Steam Navigation Co	February 1...	February 2...	(2)	209
Sicania	Italian Line	February 1...	February 2...	(2)	301
Stuyvesant	Royal Netherlands W. I. Mail	February 2...	February 3...	7	631
Naimes	Roland Line	February 2...	February 2...	104	(4)
Texas	French Line	February 2...	February 2...	16	(4)
San Bruno	United Fruit Co	February 2...	February 2...	40	150
Panama	Panama Railroad Steamship Line	February 2...	.....	2,753	.....

[1] 108 pounds. [2] No cargo discharged. [3] 340 pounds. [4] No cargo laded.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations must be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 2, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
El Lobo	Lobitas Oil Fields	January 28	January 29	5,839	
Corinto	Pacific Mail Steamship Co.	January 28	January 29	40	
Utacarbon	Union Oil Co.	January 28	January 29	10,100	
Anomia	Anglo-Saxon Petroleum Co.	January 29	January 31	7,154	
Garfield	Grace Line	January 31	January 31	175	
Sicania	La Veloce Line	January 31	February 1	165	57
Naimes	Roland Line	January 31	February 1	263	
Colombia	Pacific Mail Steamship Co.	February 2	February 3	179	

Supplement No. 6.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., January 30, 1924.

ITEM 27.—HOTEL TIVOLI.

EUROPEAN PLAN.

1. Adult Guests.

Eliminate:	1 person.	2 persons.
Tivoli annex, house No. 438—		
Rooms.....per day..	$2.50	$4.00

ITEM 38.—SPECIAL TRAINS AND CARS.

(Effective February 1, 1924.)

3. Motor cars Nos. 7 and 8. One way or round trip not exceeding 8 hours.	$60.00
Additional charge over 8 hours, per half hour or fraction thereof.....	5.00

Number of passengers limited to 16. No tickets or passes required.

M. L. WALKER,
Acting Governor, The Panama Canal.
Second Vice President, Panama Railroad Company.

Work of the Canal Forces in Connection with Maneuvers.

The Acting Governor of The Panama Canal has received letters of appreciation of the Canal forces from Admiral R. E. Coontz, Commander in Chief of the United States Fleet, and Maj. Gen. S. D. Sturgis, U. S. A., Department Commander of the Panama Canal Department, in connection with the recent maneuvers at the Canal. In his letter Admiral Coontz said:

"Before leaving Panama I desire to express my appreciation for the cordial feelings that have been shown by the employees of the Canal and their willingness to cooperate with the United States Fleet in every way possible.

"Needless to say, this has lessened the work that would have been otherwise necessary and conductive to the pleasantness of our brief stay in the Canal Zone."

In reply to the above the Acting Governor wrote:

"Your letter of the 24th instant is much appreciated. It was the desire of the organization here to cooperate fully in the Joint Maneuvers and it is a pleasure to know that this was accomplished.

"Hoping to have the Fleet with us again soon and assuring a cordial welcome whenever you do return, I am,"

General Sturgis, commanding the Panama Canal Department, said:

"I take this opportunity to express my appreciation of the assistance given the Army garrison of the Panama Canal Department during the recent Joint Army-Navy Maneuvers. Without the whole-hearted cooperation of your organization in carrying the problem to a successful conclusion many phases of the maneuvers would have been impracticable and much of its value lost."

In acknowledgment of the letter from General Sturgis the Acting Governor wrote as follows:

"Your letter of the 28th instant has just reached me, and it is a great satisfaction to the entire Panama Canal and Panama Railroad personnel to know that we were able to render real assistance during the recent Joint Army-Navy Maneuvers.

"Please accept sincere thanks for your letter of appreciation."

Executive Order.—Transit and Harbor Regulations.

The President of the United States signed, on December 23, Executive Order No. 3938, "Transit and Harbor Regulations for The Panama Canal and Approaches Thereto, Including All Waters under Its Jurisdiction."

Sections 1 to 250, inclusive, of the Order are published in the same order in the recently issued pamphlet of Transit and Harbor Regulations, notice of the issuance of which was given through a circular addressed to all concerned by the Acting Governor of The Panama Canal on January 30, 1924, and published in THE PANAMA CANAL RECORD of that date. Two additional sections, which conclude the Order, are as follows:

Section 251. All previous rules and regulations heretofore adopted containing transit and harbor regulations for The Panama Canal and approaches thereto, including all waters under its jurisdiction, and which are inconsistent with the foregoing rules and regulations are hereby repealed.

Section 252. This Order shall take effect from and after January 1, 1924.

The booklet publishing the revised regulations contains in addition to the 200 sections of the Executive Order 84 sections relating primarily to local conditions and presenting useful information for the convenience of patrons, on such subjects as signals, cables, mail, publications, quarantine, customs, etc.

Preferred Treatment in Transit of Passenger Steamers.

Beginning October 15, 1923, the Panama Canal undertook to accord preference on the transit schedule to steamers carrying 50 or more passengers. From that date until the end of December, 1923, 13 steamers southbound and 19 steamers northbound had taken advantage of the rule. Included in this number were vessels of the Pacific Steam Navigation Co., Compania Trasatlantica, Pacific Mail Steamship Co., Panama-Pacific Line, La Veloce, Messageries Maritimes, Grace Line, and the New Zealand Shipping Co.

Purchase of 600 Cattle for Slaughter.

The Panama Canal's tug *Favorite*, with three barges in tow, cleared from Balboa on February 5 for Charco Azul near Progreso in the Province of Chiriqui, Panama, where it is to load 600 steers purchased for The Panama Canal Cattle Industry.

Some small lots of beef cattle have been bought at Panama City during the past 6 months, but this is the first large purchase of steers for the Cattle Industry since January, 1922, and it is the first time that the Panama Canal has undertaken to accept delivery of cattle in the Province of Chiriqui. In previous years there have been large importations of cattle from northern Colombia, where The Panama Canal operated a cattle steamer between Cristobal and Colombian ports. It was withdrawn from service in June, 1922.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., February 13, 1924. No. 27.

Tanker Traffic Through Panama Canal, January, 1924.

During the month of January, 1924, 142 tankships transited the Canal. This is 22 less than in December, 1923, and 3 less than in November, 1923. Tankers comprised about 30 per cent of the total transits of the Canal in January, about 35 per cent of the Panama Canal net tonnage, paid about 34 per cent of the tolls, and carried about 35 per cent of the total cargo passing through the Canal.

The following tabulation shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during January, 1924, segregated by nationality of vessels and direction of transit:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
United States	62	386,808	$280,453.82	11,205
British	4	18,243	15,069.14	9,800
Totals, January, 1924	66	405,051	295,522.96	21,005
Totals, December, 1923	83	486,125	364,080.02	60,107
Totals, November, 1923	62	352,216	262,248.94	38,826
Pacific to Atlantic.				
United States	65	377,689	389,916.20	733,251
British	11	65,550	66,983.68	100,517
Totals, January, 1924	76	443,239	456,899.88	833,768
Totals, December, 1923	81	488,102	501,747.98	914,957
Totals, November, 1923	83	496,236	518,846.52	908,993

Of the total tanker traffic shown above, the following is a summary of the vessels showing Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
January, 1924	63	387,815	$279,992.01	.....
December, 1923	71	423,948	305,939.73	.....
November, 1923	55	322,453	234,590.95	8,329
From Los Angeles.				
January, 1924	70	415,194	430,324.95	801,083
December, 1923	74	454,752	467,752.55	872,656
November, 1923	75	457,676	479,966.05	870,855

Reduced Price of Coal.

The reduction in the price of coal at Cristobal from $12 to $10 per ton, effective February 1, was made in the expectation that sales will be increased sufficiently to absorb the cost of handling on the lower margin. If enough business comes to the Canal coaling plants the reduction in

price can be maintained, and with a large business the price will be reduced further.

Sales so far this month indicate a rate of handling of about 20,000 tons for the month. Sales to vessels in January, 1924, were approximately 14,500 tons, and for the last 6 months of 1923 they averaged 15,270 tons per month. It is of course entirely too early to judge of the effect of the reduced prices, but as far as it goes the above indicates a response to the lowered prices.

Panama Canal Cargo Tonnage Compared with Cargo Tonnage in the Foreign Commerce of the United States.

The United States Shipping Board has published a statement of the tonnage of cargo handled in the water-borne commerce of the United States during the fiscal year 1923. Imports for this period aggregated 46,151,798 long tons, and exports 46,805,784 tons, a grand total of 92,957,582 tons. These figures are for foreign commerce only and do not include coastwise and intercoastal cargoes.

Fifteen ports had combined imports and exports exceeding 1,000,000 tons, as follows:

Port.	Imports.	Exports.	Totals.
New York	11,802,820	10,632,797	22,435,617
New Orleans	3,897,659	3,514,858	7,412,517
Philadelphia	4,083,104	2,837,051	6,920,155
Baltimore	3,412,513	3,283,879	6,696,392
Boston	4,284,744	473,419	4,758,163
Buffalo	3,207,806	514,950	3,722,756
Port Arthur	2,287,224	1,148,158	3,435,382
San Francisco	1,104,736	1,968,192	3,072,928
Galveston	1,612,020	1,328,759	2,940,779
Los Angeles	320,496	1,530,446	1,850,942
Norfolk	351,102	1,105,956	1,457,058
Cleveland	228,910	1,163,039	1,391,949
Toledo	163,450	1,149,738	1,313,188
Portland, Me	556,236	680,174	1,236,410
Portland, Oreg	83,710	932,113	1,015,823

During the same period the cargo passing through the Panama Canal aggregated 19,567,875 long tons, exceeding the import and export cargoes handled at any United States port with the sole exception of New York, and equal to slightly more than one-fifth of the total water-borne foreign trade of the United States. This figure includes 8,068,553 tons of cargo passing through the Canal in the United States intercoastal trade and 11,499,322 tons in other trade.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended February 11:

U. S. A. T. *U. S. Grant*, renew 4-inch galvanized iron fire line; repair copper heater line to radiators; scale and clean boilers and fireroom; barge *No. 98*, dock, clean, and paint; test all tanks and stop leaks found; renew 4 upper corners and all fenders; steamship *Jamaica*, manufacture 12 kinghorn valves for air pump; 4 clamps and 8 plugs for boiler gauge cocks, two new iron ash buckets and 18 brass sockets for electric fixtures; motor schooner *Laura C. Hall*, renew piping to bilge pump and make miscellaneous repairs to piping in engine room.

Minor repairs—Steamships *Mineola, Swiftsure, Haimon, Ucayali, Van Rensselaer;* motor ships *William Penn* and *Lobos*; U. S. S. *Kanawah.*

Repair Job on Engine of the "Lancaster".

Owing to the wrecking of the main engine shaft of the steamship *Lancaster*, incident to the loss of her propeller at sea during the month of December, two new sections of crank shaft for the *Lancaster* were manufactured and installed at the Balboa Shops of the Mechanical Division, along with several spare sections of shaft and a new propeller. The engine and shafting were realigned and the engine generally overhauled to bring it back into perfect condition.

From San Francisco under date of January 21, 1924, the Chief Engineer wrote concerning the work done aboard the *Lancaster*: "The engine is working far better than I had even dared to hope for, and I sincerely believe my next report will be the best sent ashore from this boat so far." He expressed himself as being exceptionally well satisfied with the supervision afforded over his work by the foreman and leading man who had charge, and states that the "force of mechanics with whom he had direct dealings are second to none that I have ever met." "I am also pleased to state our fuel consumption is reduced from 207 to 185 barrels per day, this in itself speaks volumes for the Balboa Shops."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending February 9, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Parismina	United Fruit Co	February 3	February 3	(1)	312
Colombia	Pacific Mail Steamship Line	February 3	February 4	1,521	351
Teno	Chilean Line	February 3	February 3	55	(2)
Jason	Royal Netherlands W. I. Mail	February 3	February 4	70	12
Urubamba	Peruvian Liue		February 4		175
Santa Ana	Grace Line	February 4	February 4	3	(2)
Santa Paula	Pacific Mail Steamship Co	February 4	February 4	300	101
Canada	Johnson Line	February 4	February 4	(1)	61
Evelyn	Grace Line	February 5	February 5	40	94
Amor	Royal Netherlands W. I. Mail	February 5	February 5	(1)	573
Emil Deutsch de la Meurthe	Lucilini Navigation Co	February 5	February 7	7,663	(2)
San Blas	United Fruit Co	February 5	February 6	9	301
Mineola	Grace Line	February 6	February 6	8	64
Metapan	United Fruit Co	February 6	February 7	254	104
Santa Marta	United Fruit Co	February 6	February 7	1½	25
Atenas	United Fruit Co	February 6	February 7	553	20
S. M. Spalding	Pan-American Petroleum Co	February 6	February 8	9,500	(2)
Swiftsure	Swiftsure Oil Co	February 7	February 9	11,500	(2)
Santa Malta	Pacific Mail Steamship Co	February 7	February 7	1,400	(2)
Montana	French Line	February 7	February 7	19	(2)
Jamaica	Pacific Steam Navigation Co	February 7	February 9	893	(2)
Ecuador	Pacific Mail Steamship Co	February 8	February 9	197	39
Calamares	United Fruit Co	February 8	February 9	125	182
Amassia	Hamburg-American Line	February 9		118	
Camito	Elders & Fyffes, Ltd	February 9	February 9	18	(2)
Panama	Panama Railroad Steamship Line		February 9		2,765
Arana	Pacific Steam Navigation Co	Februray 9		154	
Haimon	Roland Line	February 9		106	
Santa Barbara	Pacific Mail Steamship Co	February 9	February 9	4	(2)

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 9, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Seiyo Maru	Toyo Kisen Kaisha	February 6	February 7	599	254
Mineola	Grace Line	February 6	February 6	200	5
Anyo Maru	Toyo Kisen Kaisha	February 6	February 7		39
Jamaica	Pacific Steam Navigation Co	February 7	February 8	13	
Depere	United States Shipping Board	February 9	February 9	341	
Ecuador	Pacific Mail Steamship Co	February 9	February 9	11	9
Laura C. Hall	Pacific Metals Corporation	February 9	February 9	15	
Corinto	Pacific Mail Steamship Co	February 9	February 9		22

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 9, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Nagato Maru	2	15.35	3	6.35	3	14.09	3	15.27	Japanese	Nippon Yusen Kaisha	385.0	51.0	26.3	New York	Yokohama	General	6,944	6,043	4,509
Ohio Maru	2	15.55	3	6.35	3	15.01	3	16.15	Japanese	Kawasaki Dockyard Co.	385.0	51.0	25.0	New York	Kobe	Iron goods	6,290	5,928	4,381
Watertown [1]	2	16.50	3	7.25	3	15.44	3	19.24	American	McAllister Bros. (S. B.)	416.9	56.2	20.0	Philadelphia	San Pedro	Ballast		6,706	4,766
District of Columbia [1]	3	0.35	3	7.32	3	16.02	3	17.00	American	Walker & Daly (S. B.)	431.0	59.2	18.0	New York	Martinez	Ballast		8,097	5,431
Sudbury	3	5.05	3	8.24	3	16.58	3	23.05	American	Shawmut Steamship Co.	384.0	51.2	19.0	New York	Seattle	General	3,625	5,571	4,033
Willpolo	3	6.10	3	8.35	3	17.20	4	0.37	American	Williams Steamship Line	386.8	52.2	21.0	Norfolk	Los Angeles	General	4,700	5,680	4,080
Foldenfjord [1]	3	9.17	3	9.35	3	17.42	4	1.35	Norwegian	Norway-American Line	430.4	59.3	16.0	Rouen	San Pedro	Ballast		7,780	5,520
A. C. Bedford [1]	2	18.40	3	11.00	3	18.17	3	19.24	American	Standard Oil Co.	500.0	68.0	19.8	New York	San Pedro	Ballast		10,896	7,688
King Alfred	3	10.00	3	12.10	3	18.53	3	20.06	British	King Line, Ltd.	400.0	52.4	16.2	Hull	Vancouver	Ballast		5,730	4,061
Tainui	3	17.55	4	5.35	4	13.44	4	16.50	British	Shaw, Savill & Albion Co.	478.0	61.5	29.5	London	Auckland	General	6,020	10,631	7,606
Jason	3	20.40	4	6.00	4	14.30	4	20.28	Dutch	Royal Netherlands W. I. Mail	346.4	45.0	17.0	Hamburg	Corral	General	1,882	4,321	3,120
Petricola [1]	3	15.45	4	7.15	4	15.23	4	19.51	British	Anglo-Saxon Petroleum Co.	412.0	53.1	19.9	Cardiff	San Pedro	Ballast		6,319	4,373
Hague Maru	4	17.47	4	7.35	4	16.29	4	17.35	Japanese	Osaka Shosen Kaisha	407.0	51.0	23.5	New York	Yokohama	(4)	5,813	6,533	4,772
Gen. Wm. Graham [2]			4	8.55	4	17.57			American	U. S. Army	173.0	32.0		Cristobal	Balboa	Ballast			
Urubamba	31	16.20	4	11.15	4	18.03	4	19.03	Peruvian	Peruvian Line	381.2	41.1	19.5	Cristobal	Ilo	General	167	4,803	2,951
Agwilake [1]	4	19.25	4	19.50	5	10.00	5	13.00	American	Atl. Gulf & W. I. Steamship Co.	468.3	62.7	19.0	New York	San Pedro	Ballast		9,802	6,957
Halsey [1]	4	14.15	4	20.50	5	10.49	5	12.35	American	Malston & Co.	435.0	56.0	20.0	Baltimore	San Pedro	Ballast		7,643	5,289
Santa Paula	4	15.10	5	0.25	5	11.31	5	15.58	American	Grace & Co.	404.0	53.9	26.0	Baltimore	San Francisco	General, steel	6,812	6,756	4,775
Knaresbro	4	17.40	5	5.23	5	13.30	5	14.40	British	Ellerman & Bucknall	447.5	57.8	28.0	Sydney	Shanghai	General	9,930	8,691	6,637
Chincha	4	22.35	5	6.30	5	14.26	5	18.05	American	Planet Steamship Corp.	403.0	52.3	29.0	Baltimore	Seattle	Steel, tin, general	8,962	6,872	4,973
Vistula [1]	5	4.50	5	7.07	5	14.55	5	15.58	Danzig	Baltic-American Pet. Import Co.	498.0	61.0	17.0	Baton Rouge	San Pedro	Ballast		10,553	7,943
Chicago Maru	5	6.27	5	7.45	5	16.11	5	17.41	Japanese	Osaka Shosen Kaisha	410.0	51.0	24.0	Buenos Aires	Kobe	(5)	4,054	6,123	4,282
San Patricio [1]	5	7.08	5	8.26	5	16.44	5	17.47	British	Eagle Oil Transport Co.	530.0	66.0	20.6	Tampico	San Pedro	Ballast		11,886	8,664
J. C. Donnell [1]	5	7.10	5	9.15	5	17.25	5	18.30	American	Atlantic Refining Co.	500.0	68.0	21.0	Philadelphia	Los Angeles	Ballast		10,435	7,304
Dominion Miller [3]	5	8.07	5	9.45	5	18.30	6	0.50	British	Furness, Withy & Co.	420.0	54.0	19.0	London	Vancouver	Ballast		6,996	5,306
Evelyn	5	0.40	5	10.50	5	19.39	6	2.14	American	A. H. Bull & Co.	313.6	46.1	17.8	New York	Callao	General	1,443	3,615	2,560
J.A. Bostwick [1]	5	13.47	5	13.55	5	21.09	6	4.31	American	Standard Oil Co.	465.2	60.0	19.0	Vallo	San Pedro	Ballast		8,511	5,981
Karonga	5	8.20	6	3.42	6	11.39	6	12.40	British	Ellerman & Bucknall	433.0	57.0	24.11	New York	Port Pirie	General	6,645	8,586	6,695
Chuky [1]	6	3.40	6	6.47	6	15.41	6	17.00	British	Sheridan Steamship Co.	440.0	56.0	26.2	Tampico	Tocopilla	Crude oil	9,133	7,691	4,723
Maimoa	6	6.15	6	6.47	6	14.04	6	17.15	British	Shaw, Savill & Albion Co.	478.0	63.0	26.6	London	Auckland	General	6,500	11,053	7,895
Bradford City	6	6.32	6	7.50	6	16.04	6	17.05	British	W. R. Smith & Co.	400.0	52.0	23.6	New York	Wellington	General	5,700	5,805	4,077
City of Christiania	6	7.30	6	8.35	6	16.56	6	21.28	British	Ellerman Hall Line	380.0	53.0	27.0	Mobile	Darien	General	6,811	6,440	4,822
Fred W. Weller [1]	6	7.43	6	9.15	6	17.44	6	18.50	American	Standard Oil Co.	500.0	68.0	19.6	New York	San Pedro	Ballast		10,928	7,710
Julia Luckenbach	6	8.05	6	10.20	6	18.30	6	19.20	American	Luckenbach Line	436.0	57.0	26.7	Boston	Seattle	General, mdse	7,876	8,543	6,402

[1] Tanker. [2] Mine planter. [3] Motor ship. [4] Iron bars, chemical, steel plates, machinery, and general. [5] Cotton, wire, canned goods, and general.

Lake Gunni....	6	6.40	6	10.40	6	19.51	6	23.55	American...	Whitney Central Trust Co.....	253.0	43.8	25.0	New Orleans..	Los Angeles...	General.....	3,600	2,915	2,005
Mineola.....	6	0.35	6	10.55	6	19.27	7	18.20	American...	Grace & Co.....	298.6	40.0	20.6	New Orleans..	Talcahuano...	General.....	1,862	2,835	1,805
Tilthorn.....	6	11.00	6	11.55	6	20.40	6	21.54	Norwegian.	Jacob R. Olsen.....	420.2	53.9	15.6	Newport News	Tocopilla.....	Ballast.....	.....	6,591	4,730
Blakeley.....	2	17.37	6	12.03	6	20.12	9	7.27	American...	Deep Sea Salvage Co.....	273.0	49.0	19.0	Newport News	Valparaiso....	Ballast.....	.....	3,027	1,794
Poseidon.....	6	14.45	7	3.45	7	12.17	7	13.22	German...	Reederel F. Laeisz.....	453.0	57.5	19.7	Hamburg.....	Corral.....	General.....	2,610	7,684	5,234
Edgemont.....	6	15.35	7	5.15	7	14.20	7	15.42	American..	Tampa Interocean Co. (S. B.)...	409.6	54.2	25.6	New Orleans..	Hongkong..	(8)	6,870	7,448	5,868
France Maru...	6	18.40	7	1.45	7	14.55	7	16.12	Japanese....	Kokusai Kisen Kaisha	385 0	51.0	23.6	Middlesboro..	San Francisco.	(9)	6,507	6,209	4,658
Taketoyo Maru	7	4.05	7	6.55	7	15.46	7	17.02	Japanese....	Nippon Yusen Kaisha.....	445.0	58.0	26.8	New York....	Kobe.....	(10)	9,253	7,972	5,687
Eastern Moon..	7	3.00	7	7.45	7	16.22	7	17.30	American...	U. S. & A. Lines (S. B.).....	385.0	51 0	23.0	New York....	Brisbane.....	Case oil, general.	6,451	5,904	4,321
Trevose.....	7	6.15	7	8.25	7	17.10	7	18.20	British....	Hain Steamship Co.....	400.0	52.0	19.0	Sydney.....	Auckland....	General.....	3,246	5,847	4,243
Buyo Maru....	7	6.42	7	9.15	7	17.52	7	20.58	Japanese....	Kisen Kabushiki Kaisha.....	400.0	55.0	20 6	Savannah....	Yokohama....	General.....	6,266	5,931	4,278
Teesbridge.....	7	9.25	7	9.50	7	19.22	7	20.34	British....	Crosby McGee & Co.....	339.0	47.0	24.0	Baltimore....	Antofagasta...	General, coke...	4,191	4,338	3,184
Montana.....	7	6.35	7	11.30	7	19.51	7	20.58	French....	Cia Generale Transatlantique...	410.0	50.0	21.3	Bordeaux.....	Vancouver....	General.....	950	6,497	4,317
Grant [6].....	5	21.15	7	12.20	7	20.30	7	21.38	American..	U. S. Army.....	490.0	55.3	26.7	Brooklyn....	San Francisco	(11)	2,145	.....	.....
Chagres [7].....	.....	.....	7	7.55	7	9.55	.....	.....	American..	American Banana Co.....	.....	.....	.....	Cristobal	Gatun.....	Ballast.....	.....	2	2
Alaska.....	6	11.20	8	4.35	.....	.....	.....	.....	Norwegian..	Christian Haaland.....	410.5	54 0	16.0	Newcastle	San Francisco.	Ballast.....	.....	6,563	4,799
Durango [1].....	7	14 15	8	6.00	8	13.53	8	15.10	American..	Malston Line.....	435.0	56.0	23.6	New York....	San Pedro....	Ballast.....	.....	7,643	5.301
Birmingham City.....	7	14.30	8	6.20	8	15.08	8	16.15	American...	U. S. Steel Products Co.....	395.5	55.0	26.6	New York....	Vancouver....	General, steel...	7,436	6,886	4,675
Defender.....	7	16.55	8	7.12	8	15.47	8	17.06	British....	T. & J. Harrison.....	483.0	58.0	22.0	Liverpool..	Vancouver....	Ballast.....	.....	8,844	6,144
W. F. Burdell [1]	8	1.30	8	7.55	8	16.35	8	17.32	American...	Pure Oil Steamship Co.....	435.0	56.0	21.0	Philadelphia..	San Pedro...	Ballast	.....	7,434	5,093
William G. Warden [1]....	8	3 55	8	8.50	8	17.12	8	18.20	American..	Standard Oil Co.....	500.0	68.2	19.0	New York....	Los Angeles..	Ballast.....	.....	10,524	7,600
Woodfield.....	8	0.05	8	9.30	8	17 57	8	18.55	British ...	Woods, Tyfor & Brown.....	400.0	53.0	25.0	Port Arthur..	Yokohama....	(12)	7,000	5,798	4,118
Chas. R. McCormick.....	8	10.05	8	10 20	8	18.34	8	19.30	American...	McCormick Intercoastal Line...	401.0	53.0	24.0	New York....	Los Angeles.	(13)	5,825	7,082	5.167
Ecuador.....	8	10.45	9	4.25	9	11.04	10	1.25	American...	Pacific Mail Steamship Co.....	380.6	48.7	24 3	Baltimore....	San Francisco.	(14)	4,144	5,926	4.178
Sutermco.....	9	5.10	9	7 18	9	15.53	9	17.05	American ..	Transmarine Corporation.....	324.0	46.2	21.6	Newark.....	San Pedro....	General.....	4,000	3,984	2.612
Sunoil [1].....	9	7.00	9	7.20	9	15.04	9	21.38	American...	Sun Oil Co.....	430.0	58.2	24.0	Rotterdam....	San Diego....	Creosote.....	8,128	7,439	5,209
Egypt Maru...	9	7.05	9	8.48	9	17.05	10	2.47	Japanese....	Kokusai Kabushiki Kisen Kaisha	400.0	54.0	28.10	Galveston.....	Yokohama....	Cotton, steel....	8,178	7,018	5,107
Aladdin [1].....	9	8.12	9	9.15	9	17.46	9	19.16	American...	Standard Transportation Co....	453.0	56.0	19.6	Providence....	San Pedro	Ballast.....	.....	7,408	5,112
Agwibay [1].....	9	6.50	9	10.15	9	18.43	9	20.00	American...	Ward Line.....	468.3	62.7	19.0	New York....	San Pedro....	Ballast.....	.....	9,776	6,903
Jamaica.....	7	23.55	9	10.55	9	19.25	9	20.35	British....	Pacific Steam Navigation Co...	229.0	33.1	10.11	Cristobal....	Corinto.....	Ballast.....	.....	1.187	622
Corinto.....	29	19.30	9	12.40	9	20.20	10	7.12	American...	Pacific Mail Steamship Co.....	261.0	40.0	16.0	Cristobal	San Francisco.	General.....	1,456	2,352	1,549
Motor Sailor...	.....	.....	9	.....	9	15.01	.....	.....	American...	U. S. Navy.....	.....	.....	.....	Cristobal.....	Gatun.....	Ballast.....	.....	.....	.....

[1] Tanker. [6] Transport. [7] Launch. [8] Case oil, cotton, and general. [9] Coke, pig iron, and brick. [10] Steel, cotton, machinery, and tobacco. [11] Household goods, automobiles, and general.
[12] Case oil and paraffin. [13] Steel, pipe, and general. [14] General, pipe, and coffee.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Colombia.....	2	6.03	3	6.29	3	11.30	4	21.38	American...	Pacific Mail Steamship Co.....	380.0	49.0	22.7	San Francisco.	New York....	General.....	1,877	6,015	4,281
E. T. Bedford [1]	2	20.30	3	6.59	3	16.35	3	16.35	American...	Pacific Mail Steamship Co.....	499.2	68.1	30.6	Los Angeles...	New York....	Crude oil.....	15,797	11,009	7,967
Teno.....	2	16.45	3	7.30	3	16.15	3	20.18	Chilean....	United Fruit Co.....	421.8	56.0	25.0	Valparaiso....	New York....	General.....	4,710	7,758	4,672
Nora [1].....	3	6.00	3	7.34	3	17.05	3	17.05	American...	Pan-American Petroleum Co....	467.6	62.7	29.6	San Pedro....	New Orleans..	Crude oil.....	14,000	9,918	7,363
Agwimex [1].....	3	7.15	3	8.14	3	17.25	3	17.25	American...	Atlantic Gulf & West Indies Co.	490.0	66.0	29.0	San Pedro....	Baltimore.....	Crude oil.....	13,000	9,394	6,306
Edgar F. Luckenbach..	3	8.15	3	8.53	3	18.00	3	18.00	American...	Luckenbach Line.....	425.0	57.5	25.0	Seattle.....	Mobile.....	General.....	3,152	8,568	6,565

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Paul Luckenbach	3	8.30	3	9.21	3	18.30	3	18.30	American	Luckenbach Line	471.1	59.2	25.6	Portland	New York	General	7,753	9,027	6,539
Santa Rosalia	3	11.30	3	12.12	3	20.45	3	23.10	American	Isthmian Lines	406.0	52.6	25.10	Mejillones	New Orleans	Nitrate	8,020	5,900	4,443
Flackwell	3	12.00	3	12.54	3	22.40	4	6.35	British	D. L. Flack & Sons, Ltd	488.0	57.2	27.6	Vancouver	Antwerp	Wheat	10,175	8,175	5,663
Agwismith [1]	3	18.55	4	6.26	4	15.15	4	15.15	American	Ward Line	499.9	68.1	28.0	San Pedro	New York	Crude oil	14,448	10,853	7,736
Canada [15]	3	16.40	4	7.25	4	16.20	4	20.30	Swedish	Johnson Line	440.0	56.0	27.0	San Francisco	Stockholm	([19])	9,000	7,476	5,456
Gargoyle [1]	3	20.00	4	8.26	4	16.55	4	16.55	American	Vacuum Oil Co	425.0	57.2	27.6	San Francisco	Philadelphia	Lubricating oil	10,100	7,510	4,989
Japan Arrow [1]	4	2.30	4	9.12	4	18.00	4	18.00	American	Standard Transportation Co	468.3	62.7	28.0	Los Angeles	Baltimore	Crude oil	12,200	10,084	7,426
Amoy	3	10.30	4	10.39	4	21.15	.....	.....	British	Geo. Waard	53.5	20.0	6.0	Seattle	Key West	Ballast	.....	31	1
Sciota	2	.....	4	10.46	4	17.50	.....	.....	American	U. S. Navy	155.0	30.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Santa Ana	4	9.30	4	10.46	4	18.45	4	21.50	American	Grace Line	360.2	51.6	24.5	Talcahuano	New York	([20])	4,040	5,776	4,081
Texan	4	3.10	4	11.40	4	19.45	4	19.45	American	American-Hawaiian Line	471.0	57.2	22.0	Seattle	Charleston	General	4,300	9,154	6,903
Sweden Maru	4	10.45	4	12.07	4	21.20	4	21.20	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.6	Vancouver	Fayal	Wheat	7,200	5,926	4,398
Persian Prince	5	2.00	5	7.19	5	18.35	5	19.50	British	Prince Line, Ltd	405.0	52.3	24.11	Vancouver	Colon [18]	Wheat	7,556	5,842	4,061
J. A. Moffett, Jr. [1]	5	7.20	5	8.26	5	19.25	5	19.25	American	Standard Oil Co. of N. J	499.2	68.1	30.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
Swiftwind [1]	5	9.50	5	10.45	5	20.15	5	20.15	American	C. D. Mallory & Co	464.6	60.2	25.0	San Pedro	Fall River	Crude oil	10,572	8,473	5,997
Shreveport [1]	5	11.15	5	11.59	5	22.18	6	2.20	American	Walker & Daly (S. B.)	435.0	56.0	25.9	Los Angeles	New York	Crude oil	9,363	7,411	5,103
Cape Henlopen [1]	5	17.00	6	6.25	6	17.30	6	17.30	American	Cape Steamship Co	434.8	56.2	26.6	San Pedro	New York	Crude oil	9,943	7,425	5,202
Trelyon	5	19.30	6	7.14	6	18.10	6	19.50	British	Hain Steamship Co	400.0	52.6	19.6	Newcastle	Boston	Wool, general	2,570	5,803	4,100
Wiegand	5	22.00	6	8.16	6	19.48	6	20.35	German	A. G. Bremen	408.0	54.0	26.0	Valparaiso	Hamburg	Nitrate, general	7,660	6,573	4,629
Toco [1]	5	21.30	6	8.30	6	21.02	7	2.45	British	Chile Steamship Co	440.8	56.1	19.9	Tocopillia	Galveston	Ballast	.....	7,693	4,831
Sucabaco	6	6.00	6	9.32	6	21.58	6	21.58	American	Transmarine Corporation	324.0	46.2	22.9	Coos Bay	Port Newark	Lumber, general	3,270	3,984	2,612
Rochester [16]	23	7.30	6	11.39	6	20.45	7	1.26	American	U. S. Navy	368.0	66.0	.....	Corinto	Cristobal	.....	.....	.....	.....
Jurel [17]	.....	.....	6	8.02	6	.....	.....	.....	American	Fred Whaler	26.3	8.0	.....	Balboa	Gatun Lake	.....	.....	9	4
Ormidale	6	18.15	7	6.14	7	17.20	7	17.20	American	Steel Steamship Lines	250.5	43.5	16.0	Seattle	New Orleans	([21])	2,177	2,373	1,612
Tuxpanoil [1]	6	19.05	7	6.48	7	18.10	7	18.10	American	McAllister Bros., N. Y	431.0	59.2	27.0	San Pedro	New York	Crude oil	9,500	7,862	5,048
H. H. Rogers [1]	7	1.30	7	7.30	7	19.10	7	19.10	American	Standard Oil Co. of N. J	500.0	68.0	28.0	San Pedro	New York	Crude oil	16,410	10,333	7,475
Agwimars [1]	7	6.00	7	7.42	7	19.50	7	19.50	American	Ward Line	429.3	59.2	27.6	San Pedro	New York	Crude oil	10,600	7,558	5,258
Artigas	7	6.30	7	8.16	7	21.50	7	21.50	American	N. Atl. & Western S. S. Co	390.0	54.2	24.0	Seattle	New York	Lumber, general	5,850	6,204	4,314
Santa Malta	7	7.00	7	8.54	7	21.00	8	18.30	American	Pacific Mail Steamship Co	404.6	53.7	23.0	San Francisco	Baltimore	General, coffee	2,663	6,766	4,809
Tiberton	7	8.10	7	10.17	7	22.43	7	22.43	British	R. Chapman & Sons	400.1	52.4	25.0	Vancouver	St. Thomas	Wheat	7,232	5,699	4,126
Jamaica	7	10.20	7	13.41	7	23.55	9	10.55	British	Pacific Steam Navigation Co	220.0	34.0	13.3	Champerico	Cristobal	General	893	1,187	622
Royal Prince	7	18.00	8	6.30	8	15.55	8	18.15	British	Prince Line, Ltd	417.8	54.5	26.6	Vancouver	Newp't News [18]	Wheat	7,835	7,164	5,271
Sachsenwald	7	18.25	8	6.54	8	16.10	8	16.10	German	Hamburg-American Line	385.0	49.7	23.0	Mejillones	Norfolk [18]	Nitrate	6,200	4,958	3,599
Livingston Roe [1]	7	18.05	8	7.27	8	17.20	8	17.20	American	Standard Oil Co. of N. J	462.4	60.2	27.10	San Pedro	New York	Crude oil	11,820	8,491	6,065
Spreewald	7	16.50	8	8.06	8	18.50	8	19.45	German	Hamburg-American Line	399.4	54.2	26.2	Corral	Antwerp	Nitrate, flour	8,282	6,791	4,997
Turakina	7	18.25	8	8.26	8	18.00	8	20.10	British	New Zealand Steamship Co	460.5	62.6	26.8	Wellington	London	Frozen, general	7,952	10,618	7,367
Duendes	8	2.00	8	8.52	8	20.00	8	22.55	British	Pacific Steam Navigation Co	390.0	50.0	25.6	Corral	London	General	6,208	6,006	4,287

[1] Tanker. [15] Motor ship. [16] Cruiser. [17] Launch. [18] For orders. [19] Wheat, fruit, coffee, lumber, [20] Copper, nitrate, beans, cotton, etc. [21] Canned goods and box shooks.

Eurana	8	3.00	8	11.48	8	22.15	8	22.15	American	International Merchant Marine	419.5	56.5	27.8	San Pedro	New York	Crude oil	9,400	6,989	4,976
Charles Pratt [1]	8	2.00	8	9.33	8	21.35	8	21.35	American	Standard Oil Co. of N. J.	500.0	68.0	28.6	San Pedro	New York	Crude oil	16,000	10,313	7,492
Commercial Spirit	8	17.00	9	6.11	9	17.10	9	17.10	American	Moore & McCormack, Inc	380.0	53.0	23.6	Seattle	New York	Lumber, general	5,750	5,659	4,138
F. H. Hillman [1]	8	15.15	9	6.45	9	17.55	9	17.55	American	Standard Oil Co	500.0	68.2	29.4	San Francisco	London	Gasoline	14,000	11,225	7,913
Gen. W. M. Graham [22]	4	17.57	9	7.36	9	19.00	.....	.....	American	U. S. Navy	156.0	32.0	.....	Balboa	Cristobal	.....	.....	.....	.....
John D. Archbold [1]	8	21.10	9	7.23	9	19.10	9	19.10	American	Standard Oil Co. of N. J.	572.6	75.3	31.0	San Pedro	New York	Crude oil	19,664	14,785	10,313
Willsolo	9	3.35	9	8.00	9	20.55	9	20.55	American	Williams Steamship Co	434.3	57.7	26.6	Seattle	New York	Lumber, general	8,000	7,983	5,882
Santa Barbara	9	6.00	9	8.46	9	19.40	9	20.40	American	Pacific Mail Steamship Co	404.6	53.9	23.11	San Francisco	Baltimore	General	4,525	6,789	4,746
Hurunui	9	8.00	9	9.37	9	21.55	10	0.20	British	New Zealand Shipping Co	470.0	62.5	24.0	New Zealand	West coast	General, frozen	5,392	10,174	7,237
Atlantic Maru	9	8.45	9	10.01	9	23.20	10	4.00	Japanese	Kawasaki Steamship Co	385.0	51.0	26.10	Caleta Colosa	Mobile	Nitrate of soda	8,440	6,251	4,700
Cuyama [23]	26	14.13	9	13.21	9	23.42	.....	.....	American	U. S. Navy	455.0	56.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Laura C. Hall	8	23.50	9	13.33	9	23.00	.....	.....	British	Pacific Metals Transportation Co	81.0	26.0	9.0	Buenaventura	Cristobal	Platinum, gold	([24])	132	72
Neponset	9	13.30	9	14.15	10	1.20	10	1.20	American	Elder & Mittnacht (S. B.)	435.0	57.6	21.6	Portland	Philadelphia	General, lumber	4,067	7,893	5,621
Ucayali	9	9.15	9	15.07	10	3.12	.....	.....	Peruvian	Peruvian Line	374.7	46.3	20.8	Ilo	Cristobal	General	2,011	4,466	2,405

[1] Tanker. [22] Mine planter. [23] U. S. tanker. [24] Value $144,859.95. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
February 3	Parismina	United Fruit Co	New Orleans via Habana.
February 3	Yuma	Di Giorgio Fruit Co	New Orleans.
February 4	Megantic	White Star Line	New York via wayports.
February 5	Emile Deutsche de la Meurthe	Lucilini Navigation Co	Curacao.
February 5	Amor	Royal Netherlands W. I. Mail Co	Amsterdam via wayports.
February 6	San Blas	United Fruit Co	Boston via Habana.
February 6	Metapan	United Fruit Co	New York via Kingston.
February 6	Atenas	United Fruit Co	New Orleans via Habana.
February 6	Santa Marta	United Fruit Co	Colombian ports.
February 7	Panama [25]	Hyatt Panama Manganese Co	Colon.
February 8	Calamares	United Fruit Co	New York via Cuba and Jamaica.
February 6	S. M. Spalding [1]	Pan-American Petroleum Co	Tampico.
February 7	Swiftsure [1]	Swiftsure Oil Co	Texas City.
February 9	Camito	Elders & Fyffes, Ltd	Port Limon.
February 9	Amassia	Hamburg-American Line	Puerto Barrios.

*DEPARTURES.

Date.	Vessel.	Line.	For—
February 3	Stuyvesant	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.
February 3	Parismina	United Fruit Co	Bocas del Toro.
February 4	Yuma	Di Giorgio Fruit Co	San Blas.
February 6	Amor	Royal Netherlands W. I. Mail Co	Port Limon.
February 6	Megantic	White Star Line	Cartagena.
February 6	San Blas	United Fruit Co	Boston via Port Limon.
February 7	Emile Deutsche de la Meurthe	Lucilini Navigation Co	Tampico.
February 7	Metapan	United Fruit Co	Colombian ports.
February 7	Santa Marta	United Fruit Co	New York via Kingston.
February 7	Atenas	United Fruit Co	New Orleans via wayports.
February 7	Panama [25]	Hyatt Panama Manganese Co	Colon.
February 8	S. M. Spalding [1]	Pan-American Petroleum Co	Tampico.
February 9	Panama	Panama Railroad Line	New York via Haiti.
February 9	Camito	Elders & Fyffes, Ltd	Kingston.
February 9	Calamares	United Fruit Co	New York via wayports.

[1] Tanker. [25] Sloop.

PORT OF BALBOA.

February 6	Seiyo Maru	Toyo Kisen Kaisha	Hongkong.	February 7	Seiyo Maru	Toyo Kisen Kaisha	Valparaiso.
February 6	Anyo Maru	Tyo Kisen Kaisha	Valparaiso.	February 7	Anyo Maru	Toyo Kisen Kaisha	Hongkong.
February 9	Depere	General Steamship Corporation	San Francisco via Talara.	February 9	Depere	General Steamship Corporation	San Francisco.

* Other than ship passing through the Canal.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective February 12, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.275
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.31
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Official Circular.

Quarantine Against Colombia Lifted.

THE PANAMA CANAL,
HEALTH DEPARTMENT,
BALBOA HEIGHTS, C. Z., February 7, 1924.

To all concerned—Quarantine against Colombia, imposed May 28, 1923, on account of yellow fever in Bucaramanga, Province of Santander, is hereby lifted.

W. C. RUCKER,
Chief Quarantine Officer.

Approved:
M. L. WALKER,
Acting Governor.

Current Net Prices of Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $1.65 per barrel at Cristobal, and $1.45 to $1.55 at Balboa; Diesel oil, Balboa only, $1.80 to $2 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $12 per ton of 2,240 pounds at Cristobal and $15 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $12 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $13 per ton at Cristobal, $16 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending upon gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., February 20, 1924. No. 28.

Traffic During the First Fifteen Days in February.

From February 1 to 15, inclusive, 231 commercial vessels and 5 small launches measuring under 20 tons passed through the Canal. Tolls on the 231 commercial vessels amounted to $1,105,274.86, and on the 5 launches to $15.45, making the total tolls for the period $1,105,290.31.

The average daily number of commercial transits during the first 15 days of February was 15.4 and the average daily tolls thereon were $73,684.99. The average daily tolls on all traffic were $73,686.02. These averages do not equal those of December, 1923, but are greater than those of any other month in the history of the Canal.

A comparison of the previous months of the current fiscal year beginning July, 1923, during which the high records for Canal traffic were established, and the first 15 days of February, 1924, is shown in the following tabulation of average daily transits and tolls, commercial traffic only:

Month.	Daily average transits.	Tolls daily average.
July, 1923	15.29	$68,529.36
August, 1923	14.65	66,150.22
September, 1923	13.77	63,415.12
October, 1923	13.77	64,148.63
November, 1923	14.53	68,606.29
December, 1923	16.32	75,346.12
January, 1924	15.34	71,511.45
February, 1924 (first 15 days only)	15.40	73,684.99

Mail Dispatches via Habana.

Arrangements were completed in January for dispatching Canal Zone mails destined for the United States via Habana and Key West whenever it appears that this routing will insure quicker delivery than if mails are dispatched to New York or New Orleans. This will usually be the case when steamers proceed from Cristobal to Habana direct, and the mails can be forwarded from Habana on the day of arrival or the day following. There is a dispatch from Habana to Key West on every day of the week except Sunday. When steamers call at intermediate ports, or arrive at Habana on Saturday, so that mail is held over until Monday morning, there is no advantage in this routing except in the case of mail for the southeastern, Atlantic, and Gulf States.

The arrangements made do not apply to foreign transit mails nor to parcels, which are still dispatched in all cases to New York or New Orleans.

Dispatches via Habana and Key West can be made on the steamers of the United Fruit Co., the Panama-Pacific Line, the Royal Mail Steam Packet Co., the Pacific Steam Navigation Co., and the Pacific Mail Steamship Co. The first dispatch over the new route was made

on the steamship *Zacapa* on January 17. Between that date and February 16 there were 12 dispatches of mail from Cristobal via Habana and Key West, as compared with 4 to New York direct. Closed dispatches to New York and New Orleans are invariably made via Key West when the mail will be expedited by transfer at Habana.

Nitrate Shipments.

Nitrate shipments routed through the Canal during the month of January, 1924, totaled 272,998 tons, slightly exceeding the aggregate shipments of this commodity for the preceding month.

Shipments for the months of December, 1923, and January, 1924, are the heaviest of record since detailed commodity statistics were first compiled, beginning January 1, 1921.

During the past three calendar years, monthly average shipments of nitrate routed through the Canal have been as follows: Average month, 1921, 82,647 long tons; 1922, 82,674 long tons; 1923, 151,210 long tons.

The following statement shows, by months, the volume of nitrate passing through the Canal during the calendar year 1923, giving the destination of shipments as shown by the cargo declarations:

Month.	United States.	British Isles.	Other European.	Miscellaneous.	Total.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*
January	91,184	5,286	94,650	.....	191,120
February	113,342	2,524	65,878	1,600	183,344
March	84,364	.....	137,722	.....	222,086
April	127,296	.....	63,461	7,226	197,983
May	24,940	8,828	31,000	1,850	66,618
June	31,339	3,011	4,020	2,046	40,416
July	60,492	34,123	63,561	26,904	185,080
August	65,631	10,286	36,197	.....	112,114
September	35,207	.....	98,221	39,896	173,324
October	39,489	3,674	30,925	7,100	81,188
November	35,058	6,830	40,700	5,916	88,504
December	87,445	.....	160,216	25,083	272,744
Totals, 1923	795,787	74,562	826,551	117,621	1,814,521

All of the above shipments for the calendar year 1923 originated on the west coast of South America with the exception of 30 tons, shipped from the west coast of the United States. Of the shipments included under *miscellaneous* above, 73,973 tons were destined for African ports.

Nitrate shipments are an important factor of the traffic passing through the Canal. During the past calendar year they comprised approximately 7.2 per cent of the total cargo tonnage passing through the Canal from the Pacific to the Atlantic, and in volume of cargo tonnage was exceeded only by the mineral oils.

Passage of "President Adams" in Around-the-World Service.

The steamship *President Adams*, the first steamer in the new around-the-world service of the Dollar Line to arrive at the Panama Canal, made the transit southbound on February 15.

The *President Adams* sailed from New York on February 7, with a full list of passengers from that port for Habana, Los Angeles, San Francisco, Honolulu, Manila, and around the world, and others booked to join the ship at ports of call.

The 7 combination passenger and freight steamers of the Dollar Line will maintain fortnightly sailings in this new around-the-world service, and will call at 21 ports in 12 different countries. They will

circumnavigate the globe in 112 days. Around-the-world tickets are sold good for two years, with stop-over privileges in all ports of call.

Additional information concerning the Dollar Line around-the-world service was published in THE PANAMA CANAL RECORD for October 3, 1923.

An Unusual Order for Provisions.

Included in the order for provisions, supplied by the Commissary Division to the steamship *President Adams*, while transiting the Canal recently, covered the following items intended for the Chinese crew: Chinese cabbage, dried white cabbage, white lily root, dried lily flower, bamboo shoots, green beans, black beans (salted), bean sticks, salted eggs, seaweed, salted ginger, dried scallops, pickled lemons, pea oil, dried oysters, dried shrimps, curb beans, red and white; bean sauce, plum sauce, dried flat fish.

The only items not supplied on the order were 24 tins of okra, which was out of stock and fresh lily root, which is not obtainable here.

Supplement No. 7.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., February 13, 1924.

ITEM 6.—BARGES, LIGHTERS, AND SCOWS.
(Effective March 1, 1924.)

1. Class "A" lighters, *Nos. 131, 132, 133, 134, 135, 136, 137, 138, 139, 140,* and *141:*	
First day or fraction thereof	$50.00
Each succeeding half day or fraction thereof	22.50
2. Class "B" lighters, *Nos. 2, 17, 19, 20, 26, 46, 48, 49, 50, 106, 108, 116, 117, 118, 119, 121, 149, 151,* and *169:*	
First day or fraction thereof	20.00
Each succeeding half day or fraction thereof	7.50
3. Class "C" lighters, *Nos. 87, 96, 97, 98, 170, 187, 188, 194,* and *195:*	
First day or fraction thereof	10.00
Each succeeding half day or fraction thereof	4.00
4. Class "D" lighters, *Nos. 36, 39, 189,* and *217:*	
First day or fraction thereof	5.00
Each succeeding half day or fraction thereof	1.50
5. Charges will be made at the above rates from time barge leaves its official station until return, based on 24 hours per day.	

M. L. WALKER,
Acting Governor, The Panama Canal.
Second Vice President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 16, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Coalinga	Union Oil Co	February 10	February 11	10,000	
Atrato	Colombian Transport Co	February 10	February 12	41	163
Theodore Roosevelt	Fred Olsen & Co	February 11	February 11	785	
Laura C. Hall	Pacific Metals Corporation	February 12	February 13		8
Alvarado	Pacific Steam Navigation Co	Februaty 13	February 13	18	
Akera	Anglo-Saxon Petroleum Co	February 13	February 16	7,022	
Valparaiso	Johnson Line	February 15	February 15	27	47
La Habra	Union Oil Co	February 15	February 18	9,950	

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, January, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.						Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.[2]	West coast of North America.[1]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total Australasia.			
North America:																								
United States—																								
North Atlantic ports	4,489	60	533	514	14,991	20,587	193,917		177			194,124					130,214		26,249		33,032	4,002	381,959	55.9
South Atlantic ports							5,188					5,188	1,109				1,109						6,297	0.4
Gulf ports					1,822	1,822	27,300					27,300	39,278	1,759		23,924	64,961		8,125		8,125		102,208	14.9
Totals, United States	4,489	60	533	514	16,813	22,409	226,435		177			226,612	131,480	5,251		59,553	196,284	3,185	34,374	3,598	41,157	4,002	490,464	71.2
East coast of Mexico	9,800					9,800							3,557				3,557						13,357	1.9
Cristobal, C. Z.[2]		189	10		2,129	2,328	1,431		4,030			5,461											7,789	1.8
East coast of Canada								7,700				7,700							4,029	4,480	8,509		16,209	2.5
Totals, North America	14,289	249	543	514	18,942	34,537	227,866	7,700	4,207			239,773	135,037	5,251		59,553	199,841	3,185	38,403	8,078	49,666	4,002	527,819	77.4
Europe:																								
Belgium					1,144	1,144	16,357	214	230			16,801											17,945	2.7
British Isles					13,890	13,890	5,826	5,622				11,448						34,275		4,779	39,054		64,392	9.4
Germany	940			100	4,926	5,966	4,440					4,440											10,406	1.5
Holland							340					340											349	
Europe[1]	2,351		12		27,943	30,306	23,637					23,637											53,943	7.9
Totals, Europe	3,291		12	100	47,903	51,306	50,600	5,836	230			56,666						34,275		4,779	39,054		147,026	21.5
East coast of South America[1]							6,055					6,055	1,412				1,412						7,467	1.1
Grand totals	17,580	249	555	614	66,845	85,843	284,521	13,536	4,437			302,494	136,449	5,251		59,553	201,253	37,460	38,403	12,857	88,720	4,002	682,312	100.0
Percent of total cargo:																								
January, 1924	2.6		0.1	0.1	9.8	12.6	41.7	1.9	0.7			44.3	20.0	0.8		8.7	29.5	5.4	5.7	1.9	13.0	0.6	100.0	
January, 1923	10.2	0.7	1.1	4.1	0.7	16.8	48.2	3.4	1.5	1.2	1.4	55.7	7.2	3.8	2.8	0.8	14.6	9.2	3.4		12.6	0.3	100.0	
January, 1922	12.2	0.2	0.7	2.1		15.0	27.6	5.7	1.0	2.1		36.6	24.2	4.8	0.1	1.5	30.6	11.5	3.3	0.2	15.0	2.8	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, January, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.													Grand totals.	Per cent of total cargo
	United States.				East coast of Canada.	East coast of Mexico.	West Indies.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	Norway and Sweden.	France.	Germany.	Holland.	Spain and Portugal.	Italy.	Europe.[2]	Total, Europe.	East coast of South America.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																				
South America:																								
Chile	104,647	124,957	24,600	254,204			6,301	10,109	270,614	34,055	123		5,220	4,540	7,910	108	62	1,219	68,768	122,005		392,619	22.5
Colombia	3,138			3,138				884	4,022													4,022	0.2
Ecuador	3,021			3,021				81	3,102	64								123	258	445		3,547	0.2
Peru	3,703			3,703	9,446			7,803	20,952	18,914				144	8,131			442	14	27,645		48,597	2.8
W. coast S. America[1]	1,209			1,209					1,209										7,870	7,870		9,079	0.5
Totals, S. America	115,718	124,957	24,600	265,275	9,446		6,301	18,877	299,899	53,033	123		5,220	4,684	16,041	108	62	1,784	76,910	157,965		457,864	26.2
North America:																								
W. coast United States	781,149		138,488	919,637		49,200		9,067	977,904	94,432	18			1,616	14,132	661			11,661	122,520		1,100,424	63.1
W. coast Canada	7,330			7,330			6,800		14,130	53,688	12,762			5,158		1,000			37,714	110,322		124,452	7.1
W. coast Cen. Am.								4,944	4,944	658										658		5,602	0.3
W. coast N. Am.[1]														652					853	1,505		1,505	
Hawaii	1,500			1,500					1,500													1,500	
Totals, N. America	789,979		138,488	928,467		49,200	6,800	14,011	998,478	148,778	12,780			7,426	14,132	1,661			50,228	235,005		1,233,483	70.7
Australasia:																								
Australia	9,346			9,346					9,346													9,346	0.6
New Zealand	4,911			4,911					4,911	15,124										15,124		20,035	1.1
Totals, Australasia	14,257			14,257					14,257	15,124										15,124		29,381	1.7
Asia:																								
Far East[1]	20,929		1,875	22,804			988		23,792												500	24,292	1.4
Grand totals	940,883	124,957	164,963	1,230,803	9,446	49,200	14,089	32,888	1,336,426	216,935	12,903		5,220	12,110	30,173	1,769	62	1,784	127,138	408,094	500	1,745,020	100.0
Percent of total cargo:																							
January, 1924	53.9	7.1	9.5	70.5	0.6	2.8	0.8	1.9	76.6	12.5	0.7		0.3	0.7	1.7	0.1		0.1	7.3	23.4		100.0	
January, 1923	46.3	3.4	4.8	54.5			1.9	1.7	58.1	13.8	1.5	0.4	0.9	2.2	1.4	0.5	0.7	1.5	18.7	41.6	0.3	100.0	
January, 1922	43.4	2.2	4.2	49.8			0.7	1.7	52.2	30.6	2.6	2.2		2.5	5.3	0.2		1.4	2.8	47.6	0.2	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 16, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Arana	9	12 25	10	6 15	10	14.10	10	17 53	British	Pacific Steam Navigation Co	303.0	43.0	16.0	New York	Callao	General	1,009	2,851	1,697
Haimon	9	9 45	10	6.15	10	14.06	10	15 15	German	Roland Line	360.0	45.0	18.10	Bremen	Champerico	General	1,647	4,350	3,117
Freeport Sulphur No. 5	9	12 25	10	7.20	10	15.15	10	16 36	American	Freeport Sulphur Co	355.5	52.5	22.5	Texas City	San Francisco	Sulphur	5,910	4,940	3,316
Marie Maersk	9	17.00	10	8 24	10	16.39	10	17.41	Danish	A. P. Moller	362.2	51.4	22.5	Santa Cruz	Vancouver	Sugar	5,250	4,971	3,428
Robin Gray	10	6 40	10	11.05	10	18.57	10	20.00	American	Robin Line	424.0	55.0	28.0	Baltimore	Honolulu	Steel, pipes, gen.	9,032	7,472	5,542
Essequibo	10	8.17	11	4.15	11	11.48	11	16.15	British	Pacific Steam Navigation Co	450.0	57.0	24.2	New York	Valparaiso	General	1,874	9,099	6,117
Lobos [2]	10	15.45	11	5.55	11	13.53	11	23.06	British	Pacific Steam Navigation Co	404 7	54.2	13.0	Hull	Iquique	General	255	7,151	4,756
Kentuckian	10	18.47	11	6.30	11	14.00	11	14.55	American	American-Hawaiian Line	429.0	54.0	23.0	Boston	Puget Sound	General	4,122	7,049	4,941
Chilore [1]	10	23.25	11	7.00	11	15.54	11	23.46	American	Ore Steamship Corporation	549.0	72.0	20.6	Baltimore	Cruz Grande	Ballast		14,538	9,348
Theodore Roosevelt [2]	11	4.05	11	8.00	11	16.36	12	11.32	Norwegian	Norway-Pacific Line	425.5	55.2	28.10	Christiania	Seattle	General	9,910	7,593	5,637
King Bleddyn	11	2.40	11	9.12	11	17.21	11	18.31	British	Dodd Thomson & Co	412.4	55.8	14.0	Norfolk	Vancouver	Ballast		6,596	4,634
Brazil Maru	11	6.25	11	9.45	11	18.06	11	19.20	Japanese	Kokusai Kisen Kabushiki Kaisha	385.0	51 0	22.6	Baltimore	Valparaiso	Coal	4,155	5,915	4,423
Kinderdijk	10	16.05	11	10.35	11	18.59	11	20.04	Dutch	Holland-American Line	450.0	58.2	18.7	Azores	Vancouver	General	707	8,515	6,060
Havo	11	9.05	11	11.20	11	19.51	11	20.54	Norwegian	Henrik Ostervold	385.0	51.5	23.6	Antwerp	San Francisco	(5)	6,437	5,213	3,745
Kanawha [1]	10	9.25	11	12.00	11	19.58	11	23.46	American	U. S. Navy	455.0	56.0	19.0	Culebra Island	Balboa	Ballast			
Scopas [1]	11	9.30	11	13.20	11	20.52	12	2.30	Dutch	Anglo-Saxon Petroleum Co	412.0	53.1	16.6	Rotterdam	San Pedro	Ballast		6,296	4,395
Sailor [3]	8		11		11	10.56			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		2	2
Robert E. Hopkins [1]	11	12.15	12	4.45	12	11.18	12	12.00	American	Tidewater Oil Co	424.4	58.2	19.5	New York	San Pedro	Ballast		7,333	5,244
Canadian Pioneer	11	14.27	12	5.53	12	13.53	12	15.00	British	Canadian Govt. Mer. Marine	400.0	52.0	19.8	Halifax	Auckland	General	2,650	5,877	4,070
London Shipper	11	21.00	12	6.40	12	14.55	12	19.56	British	Furness, Withy & Co	450.0	58.0	20.0	Swansea	Vancouver	General	3,599	8,412	5,725
William Penn [2]	9	15 20	12	7.15	12	15.54	12	21.15	American	Barber Line (S.B.)	439.6	60.2	28.6	New York	Yokohama	Case oil, general	10,951	9,019	6,226
Bessemer City	12	6.35	12	10.50	12	19.15	12	20.10	American	U. S. Steel Products Co	424.2	56 2	26.10	Mobile	Kobe	Steel, cotton	7,659	7,611	5,450
Sheaf Mead	12	7.00	12	9.15	12	17.07	12	18.45	British	Sheaf Steamship Co	380 2	53.5	21.8	Newport	Seattle	General	5,703	5,326	4,008
Laura C. Hall [4]	9	23 00	12	11.20	12	19.45	14	11.55	British	Pacific Metals Corporation	81.0	26.0	9.0	Cristobal	Buenaventura	General	66	132	72
Lochgoil [2]	11	19.44	12	12.40	12	19.43	12	23.58	British	Pacific Steam Navigation Co	485.6	62.3	19.6	London	Vancouver	General	2,100	10,803	7,606
Ribe	12	13.35	13	4.40	13	13.12	13	14.25	Danish	A. Krohn	302.0	43.0	19.0	Port Arthur	Yokohama	Case oil	2,340	2,541	1,788
W. C. Teagle [1]	12	17.45	13	5.53	13	14.38	13	15.32	American	Standard Oil Co	500.0	68.2	18.0	New York	San Pedro	Ballast		10,991	7,986
Gedania [1]	13	6.45	13	10.30	13	17.55	13	19.35	Danzig	Baltic Amer. Pet. Transp. Co	499.8	64.0	22.2	Baton Rouge	Talara	Ballast		10,597	8,085
Glasgow Maru	13	10.25	13	10.40	13	18.46	13	20.00	Japanese	Kokusai Kisen Kabushiki Kaisha	385.0	51.0	14.0	Philadelphia	Arica	Ballast		6,213	4,665
Carolinas	13	10.35	13	11.15	13	19.49	13	21.03	American	Carolina Steamship Co	333.8	48.0	23.0	New Orleans	Los Angeles	General, steel	4,649	4,171	2,827
Harry Luckenbach	13	12.19	13	12.40	13	21.24	13	22 40	American	Luckenbach Line	448.9	60.2	26.0	New York	Seattle	General	7,351	9,262	6,853
Ensley City	13	12.29	13	12.45	13	22.16	13	23.20	American	U. S. Steel Products Co	396 0	55.0	27.0	New Orleans	Darien	Steel, sulphate	7,876	7,330	5,239
Santa Teresa	13	15.11	14	4.30	14	11.29	14	16.50	American	Grace Line	369 2	51.6	24.3	New York	Talcahuano	General	2,188	5,726	4,086

[1] Tanker. [2] Motor ship. [3] Launch. [4] Motor schooner. [5] Cement, bags, and window glass.

Matinicock [1]	13	21.40	14	6.25	14	15.05	14	16.10	American	Standard Oil Co	459.0	60.0	20.0	New York	San Pedro	Ballast		8,171	5,994
Comeric	13	22.20	14	6.55	14	16.13	15	16.20	British	Andrew Weir & Co	412.6	55.0	26.0	New York	Shanghai	General, case oil	8,045	7,186	5,335
Finland	14	7.10	14	7.35	14	16.18	14	23.45	American	Panama-Pacific Line	560.0	60.0	23.8	New York	San Francisco	General	900	13,559	9,016
Floridian	14	10.10	14	10.30	14	17.40	15	1.17	American	American-Hawaiian Line	415.0	53.7	19.10	Boston	Puget Sound	General	3,491	7,273	5,105
Hector	14	6.35	15	4.30	15	11.59	15	13.05	Dutch	Royal Netherlands W. I. Mail Co.	322.3	44.2	17.9	Hamburg	Guayaquil	General	1,699	3,677	2,686
Piako	14	17.17	15	6.10	15	13.42	15	14.50	British	New Zealand Shipping Co	450.0	58.0	26.6	Newport	Port Chalmers	General	7,571	8,459	6,060
Valparaiso [6]	15	1.25	15	6.30	15	14.37	16	1.17	Swedish	Johnson Line	367.0	51.3	19.0	Stockholm	San Francisco	General	4,089	5,371	3,969
Mericos H. Whittier [1]	15	2.45	15	7.25	15	15.35	15	18.35	American	Associated Oil Co	435.6	56.2	21.6	Boston	San Pedro	Ballast		7,426	5,128
President Adams	15	6.40	15	8.25	15	16.20	15	20.34	American	Dollar Line	502.1	62.2	21.0	New York	Los Angeles	General	2,500	12,057	8,457
Manoeran	15	11.10	15	18.50	16	10.30	16	11.40	Dutch	Netherlands Steamship Co	480.5	60.3	18.0	Amsterdam	Vancouver	Ballast		9,571	6,623
Port Chalmers	15	14.35	16	5.12	16	12.43	16	13.50	British	Commonwealth & Dom. Line	450.0	55.0	25.0	New York	Sydney	General	3,235	8,264	5,863
Elmpark	15	21.10	16	6.05	16	14.04	16	15.03	British	Denholm Line	409.0	53.0	17.0	Hull	Seattle	Ballast		6,565	4,728
Canadian Winner	15	23.05	16	6.35	16	15.23	16	18.15	British	Canadian Govt. Mer. Marine	400.0	52.0	17.0	Avonmouth	Vancouver	General	2,143	5,885	4,073
Steel Ranger	16	0.10	16	7.20	16	17.10	16	18.15	American	U. S. Steel Products Co	424.2	56.2	26.0	Boston	Seattle	Steel, general	8,085	7,611	5,450
Ucayali	15	6.55	16	10.12	16	18.43	16	23.02	Peruvian	Peruvian Line	374.7	46.10	19.5	Vovenas	Callao	([8])	803	4,466	2,405
Alda	16	10.03	16	10.15	16	19.40	16	20.51	German	Roland Line	359.4	51.0	20.6	Hamburg	Corral	General	3,717	4,791	3,392
Oreya	15	22.15	16	11.00	16	20.26	16	23.14	British	Pacific Steam Navigation Co	547.3	62.6	25.8	Liverpool	Valparaiso	General	3,537	13,133	9,064
El Kantara	15	14.30	16	11.55	16	21.08	17	8.12	French	Messageries Maritimes	447.2	52.6	25.10	Dunkirk	Tahiti	General	4,098	7,357	4,983
Trekieve	16	11.32	16	13.00	16	21.42	16	23.09	British	E. Hain & Son., Ltd	400.1	52.4	21.7	New York	Auckland	General	3,403	5,766	4,083
Sciota [7]	14	.....	16	9.40	16	18.30	16	23.36	American	U. S. Navy	156 0	30.0	.....	Cristobal	Balboa	Ballast	.....	.....	.....

[1] Tanker. [6] Motor ship. [7] Tug. [8] General and 350 head of cattle.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Dillwyn [1]	10	0.45	10	7.35	10	15.30	10	15.30	American	C. D. Mallory	435.0	56.0	27.6	San Pedro	New York	Crude oil	8,000	7,441	5,099
W. S. Rheem [1]	10	5.00	10	8.09	10	17.00	10	17.00	American	Standard Oil Co. of California	500.0	68.2	29.6	Los Angeles	New York	Crude oil	15,000	11,224	7,860
West Greylock	10	8.15	10	9.40	10	17.30	10	17.30	American	Seas Shipping Co	430.7	54.3	26.6	San Pedro	New York	([11])	7,000	7,946	5,698
Romsdalshorn	10	9.45	10	11.10	10	19.00	10	21.15	Norwegian	Wessel, Duval & Co	420.0	53.9	29.9	Antofagasta	Savannah	Nitrate of soda	10,320	6,592	4,733
Ipswich	10	2.50	10	13.10	10	21.10	10	21.10	American	United American Lines	400.7	54 3	24.0	Seattle	New York	([12])	6,469	6,612	4,614
Lillian Luckenbach	10	18.30	11	6.18	11	18.05	11	18.05	American	Luckenbach Line	448.9	60.2	29.4	Portland	Boston	Lumber, general	8,400	9,291	6,865
Pennsylvania Sun [1]	10	21.08	11	7.19	11	18.55	11	18.55	American	Sun Oil Co	480.5	66.0	28.6	Los Angeles	Philadelphia	Crude oil	12,796	9,325	6,383
Minerie	10	23.30	11	7.42	11	20.15	11	22.00	British	Andrew Weir & Co	405.0	52.0	24.7	Iquique	Savannah	Nitrates	7,580	6,139	4,698
Hanley	11	6.00	11	8.07	11	20.45	11	20.45	American	Hanley Steamship Co	440.0	56.0	25.0	Everett	Baltimore	Lumber	8,600	8,301	5,995
Mount Berwyn	11	7.30	11	9.58	11	21.45	11	21.45	British	H. E. Moss & Co	400.0	52.3	26.8	Tocopilla	Colon [10]	Nitrate of soda	7,670	5,783	3,990
Tredinnick	11	10.00	11	11.23	11	22.40	11	22.40	British	Hain Steamship Co	400.1	52.1	25.6	Antofagasta	Wilmington	Nitrates	7,350	6,004	4,469
Delwood [9]	11	8.15	12	6.25	12	16.45	12	16.45	American	U. S. Government	320.0	46.0	18.6	Seattle	London	Wheat	917	1,402	2,628
Samuel Q Brown [1]	11	16.15	12	6.43	12	17.40	12	17.40	American	Tidewater Oil Co	424.4	58.2	27.0	San Pedro	New York	Crude oil	10,000	7,333	5,246
Artagan Mendi	11	20.00	12	7.13	12	18.50	16	7.40	Spanish	Sota & Aznar	400.0	46.5	24.3	Vancouver	United King	Wheat	7,178	6,003	4,333
Mabriton	11	20.30	12	7.32	12	19.10	12	19.10	British	Chapman & Sons	412.6	53.5	27.2	Vancouver	Antwerp	Wheat	9,576	6,823	4,797
Acajutla	12	2.45	12	8.10	12	20.15	17	4.30	British	Pacific Steam Navigation Co	215.7	33.5	17.10	Champerico	Cristobal	([13])	1,115	1,273	706
La Brea [1]	11	22.00	12	8.50	12	20.50	12	20.50	American	Union Oil Co. of California	435.0	56.0	27.0	Los Angeles	Philadelphia	Gasoline	9,000	7,150	4,765
W. L. Steed [1]	12	0.30	12	9.50	12	22.33	12	22.33	American	Pan-American Pet. & Transp. Co	416.8	56.1	28.0	San Pedro	New Orleans	Crude oil	9,700	6,751	4,795

[1] Tanker. [9] Army transport. [10] For orders. [11] Lumber, canned goods and copper. [12] Lumber, wool, lead, and general. [13] Coffee, sugar, and hides.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Agwisea [1]	11	23.50	12	10.16	12	21.45	12	21.45	American	New York & Cuban Mail S.S. Co	468.3	62.7	28.0	Los Angeles	New York	Crude oil	11,963	9,802	6,961
Walter Jennings [1]	12	9.30	12	10.53	12	23.35	12	23.35	American	Standard Oil Co. of N. J.	499.2	68.1	30.4	San Pedro	New York	Crude oil	17,000	11,037	7,995
Author	12	14.00	12	15.19	13	1.30	13	6.34	British	Thos. and James Harrison	433.2	53.2	25.6	Victoria	London	General	7,750	6,382	4,614
Kanawha [14]			13	6.41	13	19.36	14	6.25	American	U. S. Navy	476.0	58.0	28.0	Balboa	Cristobal				
Ansaldo San Giorgio III	12	13.30	13	6.56	13	21.00	14	14.05	Italian	T. Gugliantina	385.7	51.7	23.0	Valparaiso	Genoa	General	5,800	5,759	4,013
Tuscaloosa City	12	14.00	13	7.12	13	21.24	13	21.24	American	Isthmian Steamship Lines	424.2	56.2	26.0	San Francisco	London	([18])	7,739	7,611	5,450
Manchuria	13	1.00	13	7.48	13	18.55	14	0.45	American	Panama-Pacific Line	600.0	65.3	25.0	San Francisco	New York	General	4,900	17,044	11,488
J. N. Pew [1]	12	15.14	13	8.25	13	20.20	13	22.20	American	Sun Oil Co	480.5	66.0	27.8	San Pedro	Philadelphia	Crude petroleum	13,200	9,491	6,612
Dakotan	12	17.00	13	8.56	13	23.17	13	23.17	American	American Steamship Co	407.7	53.7	25.6	Seattle	New York	General	6,360	7,156	5,058
Algonquin [1]	12	21.00	13	9.40	14	0.10	14	0.10	American	Standard Transportation Co	435.0	56.0	27.0	San Pedro	Providence	Crude petroleum	9,534	7,602	5,337
Roland	13	5.45	13	9.55	14	1.45	15	5.30	German	Roland Line	377.8	50.1	23.3	Corral	Bremen	General	5,986	4,791	3,374
Curlew [15]			13	9.28	13	19.40			American	U. S. Navy	180.0	35.6		Balboa	Cristobal				
San Jeronimo [1]	13	6.00	13	11.24	14	3.12	14	3.12	British	Anglo-Mexican Petroleum Co	525.5	66.5	31.0	San Pedro	London	Fuel oil	15,108	12,157	8,393
Alvarado	13	10.00	13	13.15	14	5.05	15	20.43	British	Pacific Steam Navigation Co	303.0	43.0	20.0	Guayaquil	New York	General	1,396	2,844	1,748
G. Harrison Smith	13	22.00	13	23.00	14	15.50	16	6.25	British	International Petroleum Co	550.6	72.3	33.0	Cruz Grande	New York	Iron ore	19,000	15,476	10,751
Ebro	13	17.00	14	6.56	14	16.20	15	6.05	British	Pacific Steam Navigation Co	450.3	57.8	21.0	Valparaiso	New York	General	2,572	9,151	6,227
Northwestern Miller	13	18.20	14	7.09	14	17.30	15	12.25	British	Furness, Withy & Co	419.8	53.4	27.5	Vancouver	Glasgow	General	7,984	7,074	5,052
F. J. Luckenenbach	14	1.37	14	7.40	14	17.50	14	17.50	American	Luckenbach Line	446.0	56.1	21.0	Portland	Mobile	General	3,000	8,508	6,179
Dixie Arrow [1]	14	8.15	14	9.57	14	19.07	14	19.07	American	Standard Transportation Co	468.3	62.7	28.4	Los Angeles	New York	Crude oil	12,157	9,744	7,140
Miller County [1]	14	9.34	14	11.25	14	19.45	15	2.20	American	Sun Oil Co	431.0	52.2	27.3	San Pedro	Philadelphia	Crude oil	10,500	7,825	5,009
Cecil County [1]	14	8.51	14	13.16	14	22.20	14	22.20	American	Walker & Daly (S. B.)	431.0	59.2	25.0	Los Angeles	New York	Crude oil	9,465	8,097	5,330
Agwipond [1]	15	3.56	15	7.30	15	15.40	15	15.40	American	Ward Line	468.3	62.7	27.8	San Pedro	New York	Crude oil	12,360	9,810	6,965
Orita	15	6.20	15	8.34	15	17.43	15	23.32	British	Pacific Steam Navigation Co	485.4	58.2	31.5	Coronel	Liverpool	General	8,758	9,936	6,561
S. C. T. Dodd [1]	15	10.23	15	11.51	15	20.25	15	23.15	American	Standard Oil Co. of California	425.0	57.2	28.10	San Francisco	Paulsboro	Lubricating oil	10,219	7,481	4,975
Amersfoort	15	14.05	15	14.54	16	0.15	16	22.30	Dutch	Royal Netherlands W. I. Mail	482.6	62.7	27.0	Valparaiso	Hamburg	General	10,500	10,083	6,757
Akera [1]	13	16.00	16	6.21	16	17.30	16	17.30	British	Shell Oil Co. of California	400.9	52.3	24.6	San Pedro	Balboa	Ballast		6,132	4,512
Cape Ann [1]	15	17.15	16	6.39	16	18.35	16	18.35	American	Cape Steamship Co	425.8	57.0	27.6	San Pedro	New York	Crude oil	10,763	7,484	5,216
William Rockefeller [1]	16	1.00	16	7.30	16	20.30	16	20.30	American	Standard Oil Co. of N. J.	554.9	75.3	31.6	San Pedro	New York	Crude oil	18,815	14,785	10,313
China Maru	16	1.09	16	7.44	16	21.40	16	23.06	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.10	Vancouver	United King.	Wheat	7,540	5,924	4,395
Poplar Branch	16	6.00	16	8.52	16	22.15	16	22.15	British	Gulf Line, Ltd	396.0	56.0	24.4	Taltal	Azores [17]	Nitrates	7,662	6,640	5,099
Moerdijk	16	9.00	16	9.50	16	13.25	18	13.25	Dutch	Holland-American Line	473.0	61.0	24.0	Seattle	Rotterdam	Wheat, general	9,275	9,165	7,956
Tennessee [16]	16	10.00	16	10.44	16	19.35	16	19.35	American	U. S. Navy	620.0	98.0	33.0	Puget Sound	New York				
Lubrico [1]	16	10.50	16	12.46	16	23.55	16	23.55	American	Standard Oil Co. of California	425.0	57.2	29.0	Los Angeles	New York	Crude oil	10,568	7,204	4,829

[1] Tanker. [14] Navy tanker. [15] Tug. [16] Battleship. [17] For orders. [18] Barley, cotton, and case goods.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 10	Heredia	United Fruit Co.	New Orleans via Habana.	February 10	Amassia	Hamburg-American Line.	Puerto Colombia.
February 10	Amor	Royal Netherlands W. I. Mail Co.	Port Limon.	February 10	Heredia	United Fruit Co.	Bocas del Toro.
February 10	Yuma	Di Giorgio Fruit Co.	San Blas.	February 11	Yuma	Di Giorgio Fruit Co.	New Orleans.
February 11	Van Renselaer	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.	February 11	Amor	Royal Netherlands W. I. Mail Co.	Kingston.
February 12	Puerto Rico	French Line	St. Nazaire via wayports.	February 12	Van Renselaer	Royal Netherlands W. I. Mail Co.	Port Limon.
February 12	Turrialba	United Fruit Co.	New Orleans via Habana.	February 13	Heredia	United Fruit Co.	New Orleans and Habana.
February 12	Philadelphian	Leyland Line	Liverpool via wayports.	February 14	Metapan	United Fruit Co.	New York via Kingston.
February 13	Heredia	United Fruit Co.	Bocas del Toro.	February 14	Sixaola	United Fruit Co.	Colombian ports.
February 13	Cristobal	Panama Railroad Steamship Line.	New York via Haiti.	February 14	Turrialba	United Fruit Co.	New Orleans via wayports.
February 13	Sixaola	United Fruit Co.	New York via Kingston.	February 14	Puerto Rico	French Line	St. Nazaire via wayports.
February 14	Metapan	United Fruit Co.	Colombian ports.	February 16	Pastores	United Fruit Co.	New York via wayports.
February 15	Pastores	United Fruit Co.	New York via Cuba and Jamaica.	February 16	Van Renselaer	Royal Netherlands W. I. Mail.	Amsterdam via wayports.
				February 16	Esparta	United Fruit Co.	Boston.
February 15	Ulysses	Panama Railroad Steamship Line.	Norfolk.	February 16	Adalia	Hamburg-American Line	Port Limon.
February 15	Van Renselaer	Royal Netherlands W. I. Mail Co.	Port Limon.				
February 15	Adalia	Hamburg-American Line	Hamburg via wayports.				
February 16	Esparta	United Fruit Co.	Boston via Port Limon.				

PORT OF BALBOA.

February 10	Coalinga [1]	Union Oil Co. of California	Port San Luis.	February 11	Coalinga [1]	Union Oil Co. of California	San Pedro.
February 10	Atrato [19]	Colombian Transport Co.	Buenaventura.	February 12	Atrato [19]	Colombian Transport Co.	Buenaventura.
February 11	Ohio [20]	E. W. Scripp	Callao.				

[1] Tanker. [19] Motor ship. [20] Yacht.

* Other than ships passing through the Canal.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended February 18, 1924:

Steamship *Cristobal*, manufacture inspection plate and distance rings for main condensers; repair winch steam line, piping, air ports, and skylight lifting gear in waiter's quarters; scale No. 4 tanks also scale and wire brush all steel work in cargo space, orlop deck over No. 3 hold and apply two coats red lead; continue calking of wood decks, etc.; barge *No. 188*, dock, clean, and paint; test all tanks and stop leaks; renew all fenders; renew two bottom corners; electric weld and calk butts under water; install 4 new cleats, etc.; steamship *Ulysses*, grind shoulder on top end of port H. P. cylinder; clean tubes in port condenser; repair starboard circulator, circulating pump overboard discharge valve, steam heating system, air ports, and plumbing; sweep tubes and install staybolt in main boilers; continue scaling and cement-washing top side tanks; tug *Porto Bello*, dock, clean, and paint; repair main engine, fire and bilge pump, sanitary pump, steering engine, capstan engine, towing engine, galley door hinge, and sheathing for steering gear chain box; install speaking tube and bell pull from top of bridge to pump room; manufacture bracket for mast head light, and drip pans for sanitary and fresh water pumps; fit new plates and zinc in main condenser head; overhaul sea valves and strainers and renew hull zincs; scale boilers; rearrange supports under steering engine flat, etc.

Minor repairs—Steamships *Hector*, *Northwestern Miller*, *Roland*, *Alvarado*, *Canadian Pioneer*, *Santa Teresa*, *Ebro*, *Acajutla*, and *Artagan Mendi*; yacht *San Blas*; schooner *Arabia*; U. S. submarine *O-2*, and U. S. S. *Cuyama*.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective February 12, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.275
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.31
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.15
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $1.75 per barrel at Cristobal, and $1.45 to $2.00 at Balboa; Diesel oil, Balboa only, $2.15 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $10 per ton of 2,240 pounds at Cristobal and $13 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $10 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $11 per ton at Cristobal, $14 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

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Panama and Suez Traffic in 1923.

During the calendar year, 1923, the number of vessels passing through the Suez Canal was 4,621, and their aggregate net tonnage 22,730,162, Suez measurement. The Panama Canal during the same period handled 5,037 toll-paying vessels of 24,737,437 net tons, Panama Canal measurement, and, in addition, 436 public vessels of the United States, which pay no tolls and do not figure in the statistics as usually published. Most of these latter were naval vessels, rated by displacement tonnage rather than net tonnage, but the number handled would be equivalent to about 2,000,000 net tons of commercial shipping.

Prior to 1923, traffic through the Suez Canal was always greater than the traffic handled at Panama.

Summary of Passenger Movement at Canal Ports During 1923.

During the 12 months ending December 31, 1923, the number of passengers disembarking at Canal Zone ports was 28,885, while the number of embarkations during the same period was 26,255. Of the total, approximately 60 per cent of both arrivals and departures were carried as first class, and the remainder either as third class or steerage.

The following tabulation shows, by months, the number of passengers embarking and disembarking at Canal Zone ports during the calendar year, segregated as between first class and others:

1923.	Passengers disembarking.			Passengers embarking.		
	First class.	Others.	Total.	First class.	Others.	Total.
January	1,260	663	1,923	1,188	1,084	2,272
February	1,495	1,364	2,859	1,104	666	1,770
March	1,454	2,173	3,627	1,821	973	2,794
April	1,335	547	1,882	1,436	574	2,010
May	1,147	1,279	2,426	1,574	1,403	2,977
June	1,084	779	1,863	1,349	832	2,181
July	1,665	387	2,052	1,234	396	1,630
August	1,329	1,022	2,351	1,936	766	2,702
September	1,399	786	2,185	1,190	501	1,691
October	1,639	752	2,391	1,025	1,014	2,039
November	1,479	1,382	2,861	1,018	1,069	2,087
December	1,411	1,054	2,465	1,002	1,100	2,102
Totals	16,697	12,188	28,885	15,877	10,378	26,255

By far the greater part of the passenger movement to and from the Isthmus is through the port of Cristobal, as is shown by the following segregation:

	Port of Cristobal.	Port of Balboa.	Total.
Passengers disembarking	25,184	3,701	28,885
Passengers embarking	24,174	2,081	26,255

(Continued on page 417.)

CANAL WORK IN JANUARY.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of January, 1924:

BALBOA HEIGHTS, C. Z., February 18, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of January, 1924:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 476, averaging 15.35 per day. In addition to commercial transits, there were 14 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, 89 transits of Government vessels on which no tolls were paid, and two transits (southbound and return) of a vessel to Balboa for repairs, making the total transits of all kinds for the month 581, the greatest number for any month since the opening of the Canal. The daily average transits of all kinds was 18.74.

The Pacific Fleet, which made up the greater part of the 89 Government vessels transiting the Canal during the month, passed through the Canal from the Pacific to the Atlantic on January 16th, 17th and 18th. During these 3 days, the total number of vessels transiting the Canal exclusive of launches, was 122. The passage of the fleet was accomplished without appreciable delay to commercial traffic.

In connection with the recent combined naval and military maneuvers at the Canal, both Admiral R. E. Coontz, Commander in Chief of the United States Fleet, and Major General S. D. Sturgis, U. S. A., Department Commander of the Panama Canal Department, expressed their appreciation of the whole-hearted cooperation of the Panama Canal organization in bringing to a successful conclusion the many phases of the maneuvers carried out on the Isthmus.

Tolls on the 476 commercial transits aggregated $2,216,855.01 and $37.80 on the 14 launches making a total tolls collection for the month of $2,216,892.81. In total transits of all kinds the month of January, 1924, stands highest in the history of the Canal; and in number of commercial transits and amount of tolls collected ranks next to December, 1923, the high month.

The average daily collection of tolls was $71,511.45 on commercial traffic and $71,512.67 on all traffic.

The total number of craft of all kinds transiting the Canal during the month of January, 1924, as compared with January, 1923, and January, 1922, is shown in the following tabulation:

	January, 1924.	January, 1923.	January, 1922.
Commercial vessels	476	352	210
Noncommercial vessels, Army and Navy	89	20	22
Launches, under 20 tons measurement	14	3	6
For repairs	2		
Total vessels and craft through Canal	581	375	238

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	12	15	27
Pedro Miguel	30	25	55
Miraflores	30	26	56

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1924 to the end of January, 1924, as compared with the same months in the previous year:

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922-3	1923-4	1922-3.	1923-4.	1922-3.	1923-4.	1922-3.	1923-4.
July.....	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August.....	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September..	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October....	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November..	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
December...	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January....	352	476	1,610,692	2,400,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
Totals..	1,992	3,186	8,916,041	15,837,040	9,514,995	15,943,065	8,507,328.93	14,677,321.72

The increase in commercial traffic for the first 7 months of the present fiscal year, as compared with the same period for the preceding fiscal year, has been 59.94 per cent in number of vessels, 77.62 per cent in Panama Canal net tonnage, 67.56 per cent in tons of cargo carried, and 72.52 per cent in tolls.

The following is a summary of the commercial traffic in January, 1924, as compared with the corresponding month in January, 1923, and January, 1922, and the average months' traffic for the calendar year which ended December 31, 1923:

	January, 1924.	January, 1923.	January, 1922.	Average per month for calendar year 1923.
Number of vessels	476	352	210	420
United States equivalent tonnage	1,921,539	1,281,406	689,035	1,665,195
Panama Canal net tonnage	2,400,040	1,610,692	846,516	2,061,453
Registered gross tonnage	3,060,817	2,030,246	1,069,840	2,638,175
Registered net tonnage	1,922,056	1,266,981	691,648	1,660,964
Tolls	$2,216,855.01	$1,505,285.55	$847,767.55	$1,913,903.18
Tons of cargo carried	2,427,332	1,591,932	807,298	2,096,712

The average daily number of transits, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for calendar year 1923.
	January, 1924.	January, 1923.	January, 1922.	
Number of transits	15.35	11.35	6.77	13.8
Panama Canal net tonnage	77,614	51,958	22,227	67,774
Tolls	$71,511.45	$48,557.60	$27,347.34	$62,922.84
Tons of cargo carried	78,301	51,353	26,042	68,933

From the foregoing it will be seen that the traffic in January, 1924, as compared with January, 1923, increased as follows: number of commercial transits, 35.2 per cent; Panama Canal net tonnage 49.4 per cent; tolls 47.2 per cent; and tons of cargo carried 52.5 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls and cargo per vessel transiting the Canal during the month of January, 1924, as compared with January, 1923, and January, 1922, are shown in the following tabulation:

	Average per vessel.		
	January, 1924.	January, 1923.	January, 1922.
United States equivalent tonnage	4,037	3,640	3,281
Panama Canal net tonnage	5,042	4,576	4,031
Registered gross tonnage	6,430	5,768	5,095
Registered net tonnage	4,038	3,599	3,294
Tolls	$4,657.26	$4,276.38	$4,036.99
Tons of cargo (including vessels in ballast)	5,099	4,522	3,844
Tons of cargo (laden vessels only)	6,614	5,452	4,160

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement giving the summary of the intercoastal traffic through the Canal for the month of January for the past 4 years, indicates the great increase of traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
Jaauary, 1921..	17	88,086	76,593	16	62,765	81,336	33	150,851	157,929
January, 1922..	28	138,928	119,413	20	108,921	86,862	48	247,849	206,275
January, 1923..	63	336,039	231,898	45	225,446	330,098	108	561,485	561,996
January, 1924..	103	589,834	234,037	99	554,407	909,307	202	1,144,241	1,143,344

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-two vessels of the United States Shipping Board transited the Canal during the month of January, 1924; of these 12 were employed in the United States intercoastal trade. Of the 22 vessels, 11 were tankers and 11 general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels transiting the Canal during the month of January for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
January, 1922..	6	31,546	23,575	7	31,550	28,831	13	66,096	52,406
January, 1923..	13	66,872	42,539	8	36,356	45,215	21	103,228	87,754
January, 1924..	11	57,197	49,392	11	57,930	88,822	22	115,127	138,214

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of January, 1924, by principal geographical areas as compared with January, 1923, and January, 1922; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	January, 1924.	January, 1923.	January, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	894,326	575,244	279,870
Europe (including British Isles)	298,342	256,951	153,315
East coast of Mexico	18,337	10,662	30,271
Cristobal, C. Z.	11,376	26,612	18,398
East coast of South America	25,340	11,722	4,911
Miscellaneous	25,516	42,587	26,999
Totals	1,273,237	923,778	513,764
Destination, Pacific-bound tonnage.			
West coast of United States	745,823	405,126	170,927
West coast of South America	170,372	239,874	112,782
Australasia	96,034	94,650	83,526
Far East	151,151	78,526	100,878
Canada, west coast	107,794	61,488	35,450
West coast of Mexico and Central America	2,063	13,789	4,638
Miscellaneous		30,325	5,563
Totals	1,273,237	923,778	513,764
Origin, Atlantic-bound tonnage.			
West coast of United States	643,561	281,731	152,992
West coast of South America	279,529	233,829	100,846
Australasia	42,463	31,203	27,172
Far East	33,279	25,183	16,860
Canada, west coast	126,530	105,464	31,744
West coast of Mexico and Central America	1,441	1,441	2,958
Miscellaneous		8,063	180
Totals	1,126,803	686,914	332,752
Destination, Atlantic-bound tonnage.			
East coast of United States	776,289	369,539	168,337
Europe (including British Isles)	272,775	277,091	115,392
East coast of Mexico	36,171	4,942	26,831
Cristobal, C. Z.	25,425	23,771	16,489
East coast of South America		7,327	5,523
Miscellaneous	16,143	4,244	180
Totals	1,126,803	686,914	332,752

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of January, 1924, was $2,216,855.01. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,610,852.72, a difference of $393,997.71. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$56,171.48	$55,909.70	$112,081.18
Chilean	3,247.10	1,256.00	4,503.10
Danish	1,594.30	2,762.65	4,356.95
Dutch	6,369.00	6,560.35	12,929.35
French	505.20	4,681.95	5,187.15
German	8,193.85	6,099.90	14,293.75
Italian	[1] 120.75	1,500.25	1,379.50
Japanese	5,213.15	5,303.90	10,517.05
Norwegian	1,227.32	2,224.50	3,451.82
Panaman	.....	858.90	858.90
Peruvian	4,665.00	4,673.95	9,338.95
Spanish	774.80	1,859.00	2,633.80
Swedish	2,535.70	2,047.85	4,583.55
United States	73,835.21	134,047.45	207,882.66
Totals	164,211.36	229,786.35	393,997.71

[1] Indicates gain.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$52,839.85	$116,274.90	$169,114.75
United States foreign trade	20,220.66	17,125.90	37,346.56
United States to Canal Zone trade	774.70	646.65	1,421.35
Totals	73,835.21	134,047.45	207,882.66

Of the additional $393,997.71 that would have been assessed by using exclusively the Panama Canal rules of measurement, $11,098.80 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in January, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, January, 1924.
British	.87	1.38	1.15
Chilean	.38	1.11	.60
Danish	1.39	1.84	1.69
Dutch	.98	1.42	1.26
French	.44	1.49	1.22
German	.90	1.54	1.20
Italian	.39	1.21	1.06
Japanese	1.46	1.47	1.47
Norwegian	1.18	2.03	1.52
Panaman	.....	1.83	1.83
Peruvian	.24	.98	.63
Spanish	.05	1.52	1.23
Swedish	1.46	1.82	1.68
United States	1.04	1.65	1.45
Average ratio, January, 1924	.98	1.56	1.34
Average ratio, January, 1923	.98	1.48	1.25
Average ratio, January, 1922	.99	1.03	1.01

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.39	1.64	1.00
United States and South America	.30	1.90	1.25
United States and Europe	.20	1.45	.62
United States and Far East	1.28	.84	1.22
Europe and South America	.71	1.47	1.17
Europe and Canada	.53	1.60	1.14
Cristobal and South America	.32	1.20	.97
United States and Australasia	.93	.62	.84
United States and Canada	.....	.64	.36

Cargo passing through the Canal in January, 1924, totaled 2,427,332 long tons, ranking next to December, 1923, in amount of cargo. Total cargo tons through the Canal in January, 1924, was about 52½ per cent greater than the amount for January, 1923, which was 1,591,932 tons. There were 1,745,020 tons from the Pacific to the Atlantic as compared with 993,189 tons for January, 1923, and 682,312 from the Atlantic to the Pacific as compared with 598,743 for January, 1923.

From the Atlantic to the Pacific, manufactured goods with 216,119 tons is the heaviest item, with mineral oils, crude and refined, various metals, and cement following in order.

Mineral oils, crude and refined, make up nearly one half of the tonnage from the Pacific to the Atlantic, with nitrates, wheat, metals and ores, and lumber following in order.

The following commodity statistics were compiled from cargo declarations and manifests submitted by masters of vessels at the time of transit and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	January, 1924.	January, 1923.	January, 1922.
Atlantic to Pacific.			
Manufacturd goods			
Iron and steel	166,859	141,537	78,020
Railroad material	31,011	16,378	19,992
Machinery	12,239	19,953	9,046
Textiles	6,010	10,069	2,787
Mineral oils:			
Crude petroleum	10,241	25,922	65,862
Lubricating	4,765	9,019	2,180
Refined	41,008	44,592	28,407
Metals, various	47,047	38,587	10,992
Coal and coke	5,852	26,106	37,587
Cotton	11,884	9,038	8,793
Ammonia	7,900	589	10,767
Automobiles and accessories	8,913	2,681	722
Cement	31,728	12,799	2,675
Paper	9,665	9,927	2,569
Sulphur	12,154	6,694	18,025
Tobacco	5,632	2,657	1,831
Other and general	269,444	222,195	193,336
Totals	682,312	598,743	493,591
Pacific to Atlantic.			
Mineral oils:			
Crude petroleum	741,467	159,300	.....
Refined	86,347	4,866	.....
Nitrates	272,998	191,120	46,716
Lumber	111,602	132,385	57,347
Barley	9,929	25,831	8,462
Borax	3,890	8,586	1,459
Canned goods	33,055	46,776	21,865
Beans	2,261	9,459	5,088
Coffee	7,708	5,097	3,707
Cold storage	12,049	8,184	5,566
Metals, various	29,786	31,524	14,234
Ores, various	96,166	68,815	10,647
Rice	4,942	4,624	1,621
Cotton	4,013	6,725	4,238
Sugar	8,490	21,829	12,679
Wool	10,253	11,761	16,024
Wheat	156,214	134,517	29,333
Other and general	153,850	121,790	74,721
Totals	1,745,020	993,189	313,707

A detailed statement of traffic through the Panama Canal by trade routes for the month of January, 1924, was published in THE PANAMA CANAL RECORD for February 6, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of January, 1924, as compared with the same month in the years 1923 and 1922:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	January, 1924.	January, 1923.	January, 1922.	January, 1924.	January, 1923.	January, 1922.
United States intercoastal	103	63	28	99	45	20
United States and South America	22	26	11	34	24	9
Europe and South America	17	22	12	23	26	11
United States and Far East	25	13	15	5	5	2
Europe and United States	23	13	7	10	10	7
Europe and Canada	13	7	4	18	20	4
Europe and Australasia	5	9	10	3	3	4
United States and Australasia	8	4	4	5	3	2
Mexico and South America	1	2	4	2	1	3
Cristobal and South America	5	8	10	7	9	10
United States and Canada	5	4	1	4	1	2
Miscellaneous	26	23	19	13	11	11
Totals	253	194	125	223	158	85
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	589,834	336,039	138,928	554,407	225,446	108,921
United States and South America	84,924	118,879	32,227	142,322	91,660	29,283
Europe and South America	71,861	87,352	45,525	104,052	116,518	42,789
United States and Far East	144,755	74,425	81,449	28,898	25,183	10,475
Europe and United States	107,879	63,015	28,243	53,983	43,093	31,964
Europe and Canada	66,041	34,242	18,615	88,551	100,163	22,079
Europe and Australasia	37,948	64,866	57,000	21,808	17,317	18,560
United States and Australasia	47,296	20,207	22,366	20,655	13,886	8,612
Mexico and South America	4,831	9,827	20,472	9,269	4,942	15,403
Cristobal and South America	5,557	16,824	13,936	15,715	14,052	12,749
United States and Canada	21,395	20,365	4,289	30,007	5,301	9,665
Miscellaneous	90,916	77,737	50,714	57,136	29,353	22,252
Totals	1,273,237	923,778	513,764	1,126,803	686,914	332,752
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	234,037	231,898	119,413	909,307	330,098	86,862
United States and South America	23,967	19,256	16,702	270,495	165,051	30,848
Europe and South America	51,350	57,046	17,912	153,445	162,755	53,813
United States and Far East	185,909	82,804	121,939	24,292	34,508	14,845
Europe and United States	22,825	30,297	20,877	78,380	74,071	48,186
Europe and Canada	35,129	34,364	15,872	141,593	159,582	26,395
Europe and Australasia	39,054	49,164	46,096	16,535	17,212	20,279
United States and Australasia	44,157	18,181	22,634	12,846	15,805	8,800
Mexico and South America	9,800	19,336	37,152	.....	.....	.....
Cristobal and South America	1,800	3,521	2,258	18,835	4,919	6,194
United States and Canada	.....	18,754	2,521	19,185	7,081	11,826
Miscellaneous	34,284	34,122	70,215	100,107	22,107	5,659
Totals	682,312	598,743	493,591	1,745,020	993,189	313,707

LATIN-AMERICAN TRAFFIC.

This traffic shows a slight decrease in all respects as compared with the preceding month, the decreases being as follows: number of ships 7, Panama Canal net tonnage 24,491 tons, tolls $35,811.30, and tons of cargo carried 25,395. December, 1923, was, however, an exceptionally heavy month in this as in all other traffic.

As compared with the corresponding month a year ago, the Latin-American traffic for January, 1924, shows 141 transits as against 146 for January, 1923; 545,678 net tons, Panama Canal measurement, as against 530,563 for January, 1923; a greater amount of tolls collected, $514,587.14 for January, 1924, as against $475,664.79 for January, 1923; and a considerable increase in number of tons carried, 640,476 for January, 1924, as against 476,873 for January, 1923.

The principal commodities from Latin-American points were nitrates, various ores, various metals, mineral oil, crude and refined, and grain, in the order named. To Latin-American points the principal commodities were various manufactured goods, cement, crude oil, and paper in the order named.

Nitrate shipments from South America were 272,998 tons as compared with 272,714 tons in December, 1923, and 88,504 tons in November, 1923.

In the following tabulations are shown the tonnage, tolls and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessels together with the totals in each direction for the month of January in 1923 and 1922:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	20	50,560	62,712	83,767	51,258	$54,293.51	29,114
Chilean	3	7,730	10,748	15,968	8,699	9,662.50	4,110
Danish	2	3,971	5,634	6,643	4,055	4,640.71	3,557
Dutch	3	11,738	16,305	18,265	11,361	12,326.13	13,146
French	2	7,883	8,376	10,707	6,673	9,576.00	3,721
German	4	12,829	17,998	20,923	12,811	16,036.25	17,404
Italian	1	2,008	2,090	2,850	1,675	2,508.00	821
Japanese	2	7,993	8,930	11,544	7,810	7,940.25	4,014
Norwegian	5	12,858	16,776	19,492	11,921	14,125.96	5,210
Peruvian	3	3,708	7,750	12,325	6,031	4,645.00	1,863
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	196
United States	17	52,560	60,517	84,240	49,616	52,031.25	21,710
Totals, January, 1924	63	176,798	221,565	291,346	174,631	191,485.56	104,866
Totals, January, 1923	76	215,784	274,038	356,760	217,195	236,287.38	122,041
Totals, January, 1922	53	125,593	157,920	206,237	128,918	154,248.53	138,640
Pacific to Atlantic.							
British	38	134,054	165,703	217,467	134,831	164,015.08	256,897
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,230
Danish	3	8,342	9,989	11,968	7,428	10,312.10	19,041
Dutch	4	13,982	18,312	22,548	14,141	17,477.50	25,726
French	2	7,269	8,336	11,614	7,401	9,086.25	13,618
German	3	10,489	13,097	16,365	10,549	13,111,25	20,746
Italian	1	4,051	5,051	7,028	4,175	5,063.75	3,396
Japanese	3	12,617	14,397	18,285	12,529	15,771.25	26,135
Norwegian	2	6,822	8,960	10,924	6,842	8,527.50	18,125
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,948
Peruvian	3	4,225	8,296	13,764	7,790	5,281.25	8,154
Spanish	3	9,576	10,668	14,695	10,086	11,870.30	14,850
Swedish	2	4,595	6,493	7,551	5,602	5,743.75	12,074
United States	12	37,855	45,209	66,300	37,849	47,425.10	102,670
Totals, January, 1924	78	261.403	324,113	432,205	267,266	323,092.58	535,610
Totals, January, 1923	70	196,557	256,525	327,218	198,771	239,377.41	354,832
Totals, January, 1922	43	97,282	122,476	163,863	100,454	111,178.05	96,515

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up 52.92 per cent of the total transits of the Canal during January, 1924, comprised approximately 57 per cent of the Panama Canal net tonnage, and carried approximately 57 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in January, 1924, classified according to nationality of vessels, by directions, and the combined traffic in both directions, together with the totals for January, 1923 and 1922:

Nationality.	No. of vessels	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	68	258,036	333,473	415,766	259,676	$296,299.72	204,815
Chilean	3	7,730	10,748	15,968	8,699	9,662.50	4,110
Danish	5	14,043	19,607	22,935	14,231	16,136.66	10,447
Dutch	6	27,142	35,795	43,232	26,891	28.077.00	17,824
French	2	7,883	8,376	10,707	6,673	9,576.00	3,721
German	6	20,851	28,533	34,020	20,727	26,063.75	25,817
Italian	3	9,565	10,180	13,989	8,614	8,453.55	821
Japanese	10	41,001	47,890	61,581	40,357	47,533.57	55,744
Norwegian	10	24,940	30,506	36,696	22,529	26,535.10	13,038
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	1,863
Spanish	2	5,132	7,180	8,361	4,770	6,184.72	196
Swedish	3	10,785	15,182	18,156	13,480	11,112.62	8,262
United States	132	580,023	718,017	917,646	574,134	597,623.83	335,654
Totals, January, 1924	253	1,010,839	1,273,237	1,611,376	1,006,812	1,087,894.08	682,312
Totals, January, 1923	194	733,893	923,778	1,167,899	725,623	827,022.39	598,743
Totals, January, 1922	125	416,527	513,764	646,371	420,419	516,256.62	493,591

Nationality.	No. of vessels	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Pacific to Atlantic.							
British	59	230,720	286,619	374,576	232,151	$284,847.58	385,173
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,230
Danish	4	12,599	15,330	18,618	11,675	15,633.35	28,192
Dutch	6	24,793	31,293	37,869	23,160	30,991.25	41,336
French	5	18,249	22,911	29,381	18,218	22,811.25	34,271
German	5	18,018	23,852	28,927	18,053	22,522.50	36,750
Italian	2	7,819	9,395	13,303	8,130	9,773.75	11,352
Japanese	9	37,688	43,218	55,123	37,103	46,557.70	63,311
Norwegian	2	6,822	8,960	10,924	6,842	8,527.50	18,125
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,948
Peruvian	3	4,225	8,296	13,764	7,790	5,281.25	8,154
Spanish	4	13,054	15,064	20,209	13,560	16,217.80	22,850
Swedish	2	4,595	6,493	7,551	5,602	5,743.75	12,074
United States	120	524,592	645,770	825,500	524,917	650,645.75	1,066,254
Totals, January, 1924	223	910,700	1,126,803	1,449,441	915,244	1,128,960.93	1,745,020
Totals, January, 1923	158	547,513	686,914	862,347	541,358	678,263.16	993,189
Totals, January, 1922	85	272,508	332,752	423,469	271,229	331,510.93	313,707
Combined traffic.							
British	127	488,756	620,092	790,342	491,827	581,147.30	589,988
Chilean	4	11,242	15,453	23,278	12,675	14,052.50	9,340
Danish	9	26,642	34,937	41,553	25,906	31,770.01	38,639
Dutch	12	51,935	67,088	81,101	50,051	59,068.25	62,160
French	7	26,132	31,287	40,088	24,891	32,387.25	37,992
German	11	38,869	52,385	62,947	38,780	48,586.25	62,567
Italian	5	17,384	19,575	27,292	16,744	18,227.30	12,173
Japanese	19	78,689	91,108	116,704	77,460	94,091.27	119,055
Norwegian	12	31,762	39,466	47,614	29,371	35,062.66	31,163
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,948
Peruvian	6	7,833	16,046	26,089	13,821	9,916.25	10,017
Spanish	6	18,186	22,244	28,570	18,330	22,402.52	23,046
Swedish	5	15,380	21,675	25,707	19,082	16,856.37	20,336
United States	252	1,104,615	1,363,787	1,743,146	1,099,051	1,248,269.58	1,401,908
Totals, January, 1924	476	1,921,539	2,400,040	3,060,817	1,922,056	2,216,855.01	2,427,332
Totals, January, 1923	352	1,281,406	1,610,692	2,030,246	1,266,981	1,505,285.55	1,591,932
Totals, January, 1922	210	689,035	846,516	1,069,840	691,648	847,767.55	807,298

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. Panama Canal net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. Panama Canal net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	3	13,412	$9,656.64	2	9,269	$6,673.68
United States	61	379,382	273,942.54			
General cargo ships:						
British [1]	24	100,931	75,445.23			
Danish	3	12,103	8,714.16			
Dutch	3	17,725	12,762.00			
Italian	2	8,090	5,945.55			
Japanese	2	9,836	7,081.92			
Norwegian [1]	5	16,311	12,512.36			
Spanish	1	3,451	2,484.72			
Swedish	2	9,521	6,855.12			
United States	5	17,330	12,563.79			
Totals	111	588,092	427,964.03	2	9,269	6,673.68

[1] Includes 3 British and 1 Norwegian vessel that paid tolls at laden rate on account of excess bunker coal.

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of January, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
Laden	2	12,257	$11,923.78	74	433,970	$450,226.20
Ballast	64	392,794	283,599.18	2	9,269	6,673.68
General cargo ships:						
Laden	140	672,888	648,006.27	147	683,564	672,061.05
Ballast	47	195,298	144,364.85	.....	.....	.....
Totals	253	1,273,237	1,087,894.08	223	1,126,803	1,128,960.93
Steamers	237	1,203,182	1,028,964.61	215	1,097,554	1,100,704.68
Motor ships	14	69,911	58,771.97	6	29,105	28,098.75
Motor schooners	2	144	157.50	2	144	157.50
Totals	253	1,273,237	1,087,894.08	223	1,126,803	1,128,960.93

Of the 452 steam vessels, 308 were oil burners, 142 coal burners, and 2 burned either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of January, 1924. Had tolls been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Battleships	.....	.....	.....	9	[1] 273,800	$136,900.00
Cruisers	.....	.....	.....	1	[1] 7,500	3,750.00
Destroyers	.....	.....	.....	32	[1] 38,880	19,440.00
Hospital ships	.....	.....	.....	1	[1] 9,800	4,900.00
Mine layers	.....	.....	.....	1	[1] 3,800	1,900.00
Mine sweepers	.....	.....	.....	7	[1] 6,650	3,325.09
Submarines	1	[1] 495	$247.50	12	[1] 9,580	4,790.00
Submarine tenders	.....	.....	.....	1	[1] 5,970	2,985.00
Repair ships	.....	.....	.....	2	[1] 25,170	12,585.00
Tankers	1	[1] 16,000	8,000.00	3	[1] 43,800	21,900.00
Transports	2	[1] 20,000	10,000.00	1	[1] 10,000	5,000.00
Tugs	4	[1] 4,000	2,000.00	2	[1] 1,720	860.00
Supply ships	1	[2] 8,762	10,514.40	2	[1] 29,360	14,680.00
Destroyer tenders	.....	.....	.....	2	21,075	10,537.50
U. S. Army vessels:						
Transports	1	[2] 2,925	3,510.00	1	[2] 5,764	6,716.80
Tugs	1	[2] 42	33.12	.....	.....	.....
Launches	1	[2] 5	3.60	.....	.....	.....
Totals	12	52,229	34,308.62	77	492,869	250,269.30

[1] Displacement tonnage. [2] Registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls carried cargo as follows:

	Tons.
Atlantic to Pacific	16,558
Pacific to Atlantic	5,998
Totals	22,556

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statement concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	10	30	$24.30
Pacific to Atlantic	4	18	13.50
Totals	14	48	37.80

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of The Panama Canal during the month of January, 1924, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons..	49,969	44,274	94,243
Local cargo shipped....tons..	5,393	332	5,725
Transit cargo arriving....tons..	2,311,162	2,379,980	4,691,142
Transit cargo clearing....tons..	2,273,740	2,382,626	4,656,366
Cargo received for transshipment....tons..	28,153	267	28,420
Cargo transshipped....tons..	27,105	53	27,158
Vessels supplied with bunker coal:			
Army and Navy vessels....	2	1	3
Commercial, other than Panama Railroad....	50	3	53
Panama Railroad Steamship Co....	1	.....	1
Total vessels supplied with coal....	53	4	57
Coal supplied to above vessels:			
Army and Navy vessels....tons..	53	22	75
Commercial, other than Panama Railroad....tons..	11,974	1,009	12,983
Panama Railroad Steamship Line....tons..	360	.....	360
Total coal supplied to vessels....tons..	12,387	1,031	13,418
Coal issued, miscellaneous:			
Panama Canal departments....tons..	319	112	431
Panama Railroad Co....tons..	17	.....	17
U. S. Army, excepting vessels....tons..	1,449	.....	1,449
Individuals and companies....tons..	357	.....	357
Total issues from Panama Canal deposits:			
January, 1924....tons..	14,143	1,143	15,672
January, 1923....tons..	23,436	556	23,992
January, 1922....tons..	19,496	993	20,489
Coal on hand, February 1, 1924....tons..	96,667	.....	96,667
Coal on hand, January 1, 1924....tons..	87,116	.....	87,116
Coal received during the month....tons..	24,080	[1] 1,143	25,223
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	6,084.55	39,317.17	45,401.72
Panama Railroad Co....bbls..	1,220.33	425.73	1,646.06
Army and Navy....bbls..	599.90	113.77	713.67
Total issues and sales....bbls..	7,904.78	39,856.67	47,761.45
Fuel oil received during January, 1924....bbls..	.....	45,696.50	45,696.50
Fuel oil on hand, February 1, 1924....bbls..	32,536.06	54,699.68	87,235.74
Diesel oil sold during January, 1924....bbls..	64.32	18.51	82.83
Diesel oil on hand, February 1, 1924....bbls..	41,041.36	751.98	41,793.34
Oil pumped for individuals and companies....bbls..	575,017.88	637,725.76	1,212,743.64
Miscellaneous transfers....bbls..	3,562.80	6,521.79	10,084.59
Gasoline pumped for Panama Canal....bbls..	1,092.24	179.16	1,271.40
Gasoline pumped for individuals and companies....bbls..	.....	2,690.50	2,690.50
Total gasoline and fuel oil handled....bbls..	587,642.02	732,688.89	1,320,330.91
Admeasurement of vessels:			
U. S. equivalent certificate issued or made....	38	14	52
Measured for Panama Canal net tonnage....	5	2	7
Remeasured for Panama Canal net tonnage....	31	11	42
Panama Canal net tonnage corrected....	16	7	23
United States equivalent tonnage corrected....	23	10	33
Services of harbor equipment:			
Tugs, total operating hours....	621¾	318½	940¼
Launches, total operating hours....	1,594½	1,495	3,089½
Scows, total operating days....	.....	4½	4½
Revenues from tug service, pilotage, etc.:			
Tug revenue....	$16,720.00	$9,908.75	$26,628.75
Pilotage....	16,948.00	7,202.00	24,150.00
Seamen....	8,664.00	7,864.00	16,528.00
Launch service....	2,180.00	3,006.00	5,186.00
Wharfage....	.....	5,277.66	5,277.66
Ships measured....	300.00	105.00	405.00
Miscellaneous cash collections....	3,007.55	724.50	3,732.05
Vessels repaired at Panama Canal shops:			
Commercial....	33	26	59
U. S. Army and Navy....	8	7	15
Canal equipment....	7	18	25

[1] Borrowed from U. S. Navy at Balboa; returned to U. S. Navy at Cristobal.

	Cristobal.	Balboa.	Total.
Vessels drydocked:			
Commercial	5	2	7
Panama Canal equipment	5	6	11
Clearances issued	366	269	635
Bills of health issued	373	269	642

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	658	4,167,619	2,870,558	573	3,719,336	2,533,555
Vessels entering port but not transiting Canal	53	301,309	176,225	9	43,497	27,497
Vessels transiting Canal and handling passengers and cargo at terminals	68	403,411	254,270	53	341,585	221,420
Ships clearing.						
All vessels, including those transiting Canal	651	4,116,807	2,840,660	576	3,723,497	2,531,512
Vessels entering port but not transiting Canal	56	323,859	190,414	10	43,650	27,582
Vessels transiting Canal and handling passengers and cargo at terminals	66	385,726	243,550	52	343,178	222,471

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	1,202	1,119	2,321	15	30	45
From Pacific ports	150	38	188	161	107	268
Total disembarking	1,352	1,157	2,509	176	137	313
Embarking:						
For Atlantic ports	859	819	1,678	13	3	16
For Pacific ports	142	73	215	59	25	84
Total embarking	1,001	892	1,893	72	28	100
Remaining on board vessels:						
From Atlantic to Pacific ports	1,640	3,867	5,507	1,629	2,183	3,812
From Pacific to Atlantic ports	2,171	787	2,958	1,262	985	2,247
From Atlantic to Atlantic ports	866	67	933	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	12	97	109
Total remaining on board	4,677	4,721	9,398	2,903	3,265	6,168
Total passengers arriving	6,029	5,878	11,907	3,079	3,402	6,481
Total passengers departing	5,678	5,613	11,291	2,975	3,293	6,268

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of January, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$2,064.86	$17,926.16	$43,924.95	$454.45	$4,751.68	$69,122.10
Panama Railroad vessels	51.30	21.14	2,852.81	853.86	655.21	4,434.32
Other commercial vessels	347.57	9,345.67	18,933.78	31.96	1,456.81	31,115.79
Total sales, January, 1924	3,463.73	27,292.97	65,711.54	1,340.27	6,863.70	104,672.21
Total sales, January, 1923	1,093.06	3,590.26	15,801.35	.....	1,196.13	21,680.80
Total sales, January, 1922	1,579.51	3,105.54	15,558.24	.....	968.55	21,211.84
Sales at Balboa to:						
U. S. Government vessels	285.38	1,409.03	6,147.50	23.99	2,635.13	10,501.03
Panama Railroad vessels	9.45	69.85	153.57	164.34	.....	397.21
Other commercial vessels	447.20	2,076.60	7,048.46	465.55	5,162.98	15,200.79
Total sales, January, 1924	742.03	3,555.48	13,349.53	653.88	7,798.11	26,099.03
Total sales, January, 1923	739.50	1,031.15	10,532.39	454.49	1,305.60	14,063.13
Total sales, January, 1922	474.40	4,082.16	12,320.07	69.30	1,324.62	18,270.55

The aggregate sales to Government vessels during the month were $79,623.13; to Panama Railroad vessels $4,831.53; to other commercial vessels $46,316.58; making a grand total of sales to all vessels $130,771.24.

LOCK OPERATION.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of January, 1924, as compared with the corresponding month in 1923 and 1922:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Jan., 1924.	Jan., 1923.	Jan., 1922.
Gatun	222	243	465	37	9	46	511	352	219
Pedro Miguel	223	254	477	42	17	59	536	353	239
Miraflores	224	253	477	40	12	52	529	369	225
	Number of vessels put through locks.								
Gatun	235	264	499	90	28	118	617	383	268
Pedro Miguel	228	259	487	110	37	147	634	405	290
Miraflores	228	258	487	110	41	151	638	414	286

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	91	92	95
Panama Canal equipment	27	55	56

The total consumption of water for lockages, maintenance, and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,997,120,000	1,833,310,000	1,705,680,000
Leakages	30,000,000	6,200,000	20,000,000
Maintenance			3,810,000
Totals, January, 1924	2,027,120,000	1,839,510,000	1,729,490,000
Totals, December, 1923	2,020,620,000	1,921,340,000	1,752,480,000
Totals, January, 1923	1,387,220,000	1,162,860,000	1,120,070,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of January, 1924, are shown in comparative form:

Rainfall for month.	January, 1924.	January, 1923.	January—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific Section	Trace	.55	3.13	Trace	1.07
Central Section	.13	1.33	5.01	.13	1.52
Atlantic section	1.06	2.54	12.01	.62	3.92
Maximum recorded on any one day	.35	1.37	[1] 12.25	.....	.....
Gatun Lake watershed	.43	1.98	5.86	.43	1.97
Chagres River watershed above Alhajuela	.68	2.32	12.10	.38	3.05
Maximum recorded for month at any one point	1.71	4.24	22.32	.....	.....
Minimum recorded for month at any one point	.00	.02	.....	.00	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	1,268	1,992	5,050	682	2,029
Maximum momentary discharge for the month	2,110	5,604	[2] 49,500	.....	.....
Gatun Lake watershed total yield	1,840	3,123	9,298	1,371	3,027
Gatun Lake watershed net yield	1,050	2,363	8,641	769	2,334
Draft on Gatun Lake for lockages and power	[3] 1,887	2,302	2,505	[4] 987	[4] 1,879

[1] This represents the maximum 24-hour rainfall recorded on the Canal and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] January 29, 1909. [3] Major power load carried by auxiliary plant at Miraflores. [4] Not including January, 1914.

SEISMOLOGY.

Slight seismic disturbances were recorded on the 1st, 2d, 24th, 25th, 28th, 29th and 30th.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	January, 1924.	January, 1923.	January, 1922.
Gross output, KWH:			
Gatun hydroelectric station	1,266.100	4,784.500	4,611,800
Miraflores steam plant	3,498,220	.....	280
Power distributed to consumers.....KWH..	3,992,367	4,119,223	4,122,618
Loss of power in plants, accessories, transmission, and transformers.....KWH..	771.953	655,277	689,462
Per cent of loss of power to gross output	16.2	13.9	14.32
Water consumption.....cubic feet..	1,254,728,463	3,622,991,356	3,657,240,000
Oil consumption.....barrels..	20,361.86	1,487	1,881

Fifty-six work orders covering electrical repairs and installations of electrical equipment on 30 vessels were completed during the month, as well as the usual operation, maintenance, and repair work.

There were 286 work orders issued for work performed by the different sections of the Electrical Division during the month, as compared with 251 during the preceding month.

SHOP FOUNDRY AND DRY DOCK WORK.

During the month, miscellaneous repairs were made on 48 vessels at Cristobal and 51 at Balboa. Of these, 10 were in dry dock at Cristobal and 8 at Balboa. The more important repair work during the month included the following:

Dock trial of the steamship *Lancaster* was held on January 6, upon rebuilding of engine shafting and realigning engine. Subsequent reports were to the effect that the machinery functioned unusually well on the run from Balboa to San Francisco.

The hull of the steamship *C. H. Livingstone* was cemented up in wake of the damage to her bow through grounding, and her shafting was lined up.

Repairs to the steamship *Colon* were completed, successful dock trials were held on January 14, satisfactory sea trials were run on January 16, and she was turned over to the new owners and left for San Francisco on January 19.

The large quantity of spare parts manufactured in preparation for the overhaul of Gatun locks were completed on the scheduled date of February 1. During the month the machine and boiler shops were mainly occupied in this work, night shifts being resorted to as required.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	January, 1924.			December, 1923.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	10	914	29,804	13	676	30,083½
Steel	2	312	46,058	4	286	70,383
Nonferrous	5	668	22,701½	10	610	12,380

There were 694 job orders on hand at the beginning of the month, 623 were authorized during the month, and 697 were completed during the month, leaving 620 on hand at the close of the month.

There were 358 standing orders on hand at the beginning of the month, 3 were authorized during the month and none were completed, leaving 361 standing orders on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of the 3 filtration plants, the amount of water consumed by the cities of Panama and Colon, and the sales of water to vessels are shown in comparative form in the following tabulation:

	January, 1924.	January, 1923.	January, 1922.
Pumping stations	681,026,000	738,501,500	663,058,500
Filtration plants	402,444,000	427,685,000	392,676,000
Water consumed by Panama	97,182,000	91,982,000	85,076,000
Water consumed by Colon	55,416,500	64,649,750	52,321,500
Sales of water to vessels	14,223,823	9,368,692	10,249,500

DREDGING.

All slides were quiescent during the month with the exception of West Lirio, south.

The slide at West Lirio, south, resumed activity on the night of January 9, carrying about 125,000 cubic yards of material into the Canal prism. This movement extended over a frontage of 800 feet between stations 1730 and 1738 west. This movement, similar to the previous one, affected the west half of the channel only.

On the 26th, a bank movement occurred on the north shoulder of the present slide area, between stations 1730 and 1727 south, carrying approximately 10,000 cubic yards into the prism. The total yardage removed from this slide since October 28, 1923, is 868,610 cubic yards. There was no interference with Canal traffic during the month.

The total excavation during the month was 395,800 cubic yards as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
149,550	29,900	119,650	Maintenance	Gaillard Cut, west Lirio slide south	*Paraiso.*
20,950	3,150	17,800	Maintenance	Gaillard Cut, west Lirio slide north	*Paraiso.*
14,950	.....	14,950	Maintenance	La Pita improvement project	*Paraiso.*
26,600	5,300	21,300	Maintenance	Gaillard Cut, west Lirio slide south	*Gamboa.*
10,300	.....	10,300	Maintenance	Gibraltar Point, east	*Gamboa.*
31,900	4,800	27,100	Maintenance	West Culebra slide	*Gamboa.*
11,900	1,200	10,700	Maintenance	Cucaracha slide, east and west	*Gamboa.*
129,650	129,650	.....	Maintenance	Gaillard Cut, Gamboa	*No. 86.*

VITAL STATISTICS.

A total of 165 deaths occurred during the month of January, 1924, among the population of the Canal Zone and the cities of Panama and Colon, which is equivalent to an annual death rate of 16.22 per thousand. The leading causes of death were: pneumonia (broncho and lobar), 37; diarrhea and enteritis, 26; tuberculosis (various organs), 20; nephritis (acute and chronic), 11; organic diseases of the heart, 6; and apoplexy, 5. Of the total deaths 85, or 52 per cent occurred among children under 5 years of age. There were 17 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 327 live births reported during the month and 14 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 33.53 per 1,000 population. Deaths among children under one year of age numbered 51, giving an infant mortality rate of 155.96 per thousand live births.

The total number of malaria cases reported during the month was 181. Of these 19 were reported from Panama City, 2 from Colon, 101 from sanitated, and 34 from unsanitated areas of the Canal Zone, and 25 outside of the Canal Zone. Of the total, 32 were employees, 72 were Army and Navy, 77 were nonemployees. There were 3 deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters is shown in the following tabulation in comparative form:

	As of January 31, 1924.			Comparative totals.		
	Men.	Women.	Children.	January, 1924.	January, 1923.	January, 1922.
Americans	2,441	2,029	2,131	6,601	6,221	6,358
Europeans	72	28	69	169	182	244
West Indians	3,544	2,622	6,070	12,236	12,769	12,697
Totals, January, 1924	6,057	4,679	8,270	19,006	.....	.....
Totals, January, 1923	6,567	4,619	7,986	.....	19,172	.....
Totals, January, 1922	7,098	4,448	7,753	.....	.....	19,299

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of January 16, 1924:

	As of January 16, 1924.			Total employees.	
	Gold.	Silver.	Total.	December, 1923.	January, 1923.
Operation and maintenance:					
Office	27	42	69	84	61
Electrical	158	187	345	325	303
Municipal Engineering	69	496	565	515	609
Lock Operation	207	629	836	804	803
Dredging	155	875	1,030	1,039	926
Mechanical	411	802	1,213	1,180	870
Marine	168	585	753	707	573
Fortifications	12	44	56	37	162
Totals	1,207	3,660	4,867	4,691	4,307
Supply Department:					
Quartermaster	141	1,068	1,209	1,238	1,027
Subsistence	6	109	115	99	97
Commissary	171	872	1,043	991	939
Cattle Industry, plantations	5	192	197	123	285
Hotel Washington	8	95	103	98	95
Transportation	33	157	190	184	174
Totals	364	2,493	2,857	2,733	2,617
Accounting Department	191	8	199	197	186
Health Department	224	713	937	938	932
Executive Department	499	259	758	738	723
Totals	914	980	1,894	1,873	1,841
Panama Railroad:					
Superintendent	46	288	334	330	284
Transportation	62	106	168	166	165
Receiving and Forwarding Agent	78	920	998	1,129	721
Coaling stations	61	499	560	533	519
Totals	247	1,813	2,060	2,158	1,689
Grand totals, January, 1924	2,732	8,946	11,678	.....	.....
Grand totals, December, 1923	2,702	8,753	.....	11,455	.....
Grand totals, January, 1923	2,520	7,934	.....	.....	10,454

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month in 1923, were as follows:

	January, 1924.	December, 1923.	January, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$425,367.97	$407,093.11	$201,602.60
For other Panama Canal departments	28,188.36	16,379.82	1,675.12
Totals	453,556.33	423,472.93	203,277.72
Cash sales on the Isthmus:			
Stock	23,378.80	29,761.91	24,399.29
Fuel oil	151.16	413.68	90.93
Scrap	489.41	4,640.14	2,302.59
Obsolete and second-hand material	1,243.31	778.30	1,015.74
Totals	25,262.68	35,594.03	27,808.55

Respectfully,

M. L. WALKER,

Acting Governor.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

(Continued from page 401.)

A yet further segregation of the passenger movement shows that 23,815 incoming, and 21,941 outgoing passengers were bound from and destined to ports on the Atlantic seaboard, and 5,072 incoming and 4,314 outgoing passengers were bound from and destined to ports on the Pacific coast.

In addition to the figures shown above of passengers arriving and departing, there were 66,948 passengers brought to the Isthmus by vessels calling at Canal Zone ports. Many of these passengers came ashore for a period of 24 or 48 hours, but as they departed from the Isthmus on the same vessel as that on which they arrived they are not taken up in the above tabulation of passengers embarking and disembarking. This group of 66,948 passengers is segregated as follows:

Remaining aboard vessels transiting the Canal	53,728
Remaining aboard vessels entering the port of Cristobal but not transiting the Canal	11,106
Remaining aboard vessels entering the port of Balboa but not transiting the Canal	2,114

Of the 53,728 passengers transiting the Canal, 34,156 were en route from the Atlantic to the Pacific, and 19,572 en route from Pacific to Atlantic ports. The strictly passenger traffic as outlined in the foregoing is, relatively, a rather small proportion of the total number of persons entering Canal Zone ports as it is far exceeded by the aggregate members of the crews of vessels entering Canal Zone waters.

During the past calendar year, 5,037 commercial vessels transited the Canal. Assuming that the crews averaged 45 to the vessel, the crews, in the course of a year, would amount to approximately 225,000 persons. To these figures must be added the crews of vessels making Balboa or Cristobal a port of call without transiting the Canal, totaling possibly 50,000 additional; to this should be added the crews of the Navy vessels entering Canal Zone ports in the course of a year, which would total at least 35,000 more, as the number of men carried on the vessels of the combined fleets, together with the accompanying auxiliary ships, would total from 25,000 to 30,000, and isolated transports, colliers, supply ships, etc., would easily bring the figures up to 35,000.

Thus, it will be seen that, in addition to the regular passengers, some 310,000 additional persons entered Canal Zone ports during the past year, though owing to many vessels making a number of transits in the course of a year there is considerable duplication in these figures in so far as the actual number of individuals is concerned.

Steamship "Colon" Renamed "Yukon."

The steamship *Colon*, recently purchased from the Panama Railroad by the Alaska Steamship Company, has been renamed *Yukon*, and is being operated out of Seattle, alternating with the steamships *Northwestern* and *Alaska* in maintaining a weekly sailing to Seward via southeastern and southwestern Alaskan ports.

In a letter to one of the employees of the Mechanical Division, the Chief Engineer of the *Colon*, writing under date of February 2, 1924, from Seattle, Wash., wrote in part, as follows:

"We arrived in Seattle 12 days 4 hours from Balboa. Everything went fine, never stopped the engines at all. Are in condition to start on another 4 068 mile voyage. Had some trouble with ammonia leaks but got them stopped after a while O. K. The engines run like a clock and as cool as an iceberg. All are well pleased with performance of ship throughout voyage."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 23, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Acajutla	12	20.15	17	4 30	17	11.46	17	14.35	British	Pacific Steam Navigation Co	215.7	33.4	15.8	Cristobal	Champerico	Gen., explosives	876	1,273	706
Halo [2]	16	13.45	17	5 15	17	12.53	17	14.00	American	Cities Service Corporation	435.0	56.0	22.0	Boston	San Pedro	Ballast		7,434	5,093
Miskianza	17	7.40	17	8 00	17	14.56	17	16.00	American	Walker & Daly (S. B.)	425.0	57.2	20.6	Philadelphia	San Pedro	Ballast		7,205	5,125
Steelore [1]	17	1.00	17	9 05	17	17.47	18	1.36	American	Ore Steamship Co	550.3	72.2	23 0	Baltimore	Cruz Grande	Ballast		15,551	4,297
Susherico	17	10.50	17	11.00	17	18.41	17	19.50	American	Transmarine Corporation	324.0	46.2	23.4	Newark	Seattle	General	4,100	3,984	2,612
Jacques Cartier	17	18.10	18	17.50	18	13.35	18	15.02	French	French Line	472.0	59.0	21.0	Havre	San Francisco	Cacao	51	10,068	7,083
El Grillo [1]	18	7.18	18	8.00	18	16.56	18	20.25	British	Lobitos Oil Fields, Ltd	440.0	57.0	19.0	Southampton	Talara	Ballast		7,468	5,042
Scottsburg	18	16 45	19	5.55	19	13.54	19	15.00	American	Barber Line (S. B.)	419.5	56.5	31.0	New York	Yokohama	General, case oil	10,448	8,696	6,316
David McKelvy [1]	18	23 20	19	6.25	19	14.32	19	15.30	American	Tidewater Oil Co	430.0	59.2	20.0	New York	Los Angeles	Ballast		7,629	5,393
Cathwood [1]	19	9.05	19	9.25	19	17.34	20	5.37	American	Union Oil Co	435.0	56.0	26.0	Tampico	Antofagasta	Fuel oil	10,000	7,482	5,143
Kansas	19	8.30	19	22.20	20	9.16	20	10.30	British	Ellerman & Bucknall Line	431.7	54.6	21.6	New York	Brisbane	General	4,248		
Rio Gatun [2]	18		19		19	11.27			Panaman	A. R. Eckhart				Cristobal	Gatun Lake	Unknown		8	8
Delft	19	0.40	20	4.15	20	12.07	20	13.18	Dutch	Royal Netherlands W. I. Mail	376.0	52.6	21 0	Hamburg	Corral	General	2,900	5,862	4,393
Standard [1]	19	23.25	20	5.55	20	13.59	20	15.15	American	Standard Oil Co	523.0	68.0	21 6	New York	Los Angeles	Ballast		12,171	8,782
J. L. Luckenbach	20	6.15	20	8.35	20	16.13	20	17.05	American	Luckenbach Line	448.9	60.2	29 0	Boston	Seattle	General	8,420	9,294	6,861
Rhodopis	19	19.55	20	9.35	20	16.26	21	5.50	German	Kosmos Line	435.0	53.0	22 6	Hamburg	Corral	General	2,870	7,525	5,154
Melville Dollar	20	9.30	20	10.12	20	17.59	20	19.00	American	Robert Dollar Co	429.0	55.0	18.2	New York	Vancouver	General	2,497	7,581	5,519
Cacique	19	19.15	20	10.37	20	18.59	20	20.05	American	Grace Line	394.2	52.3	27.4	Baltimore	San Francisco	General	7,328	6,652	4,913
Bologna	19	7.49	20	11 30	20	19.35	20	20.35	Italian	La Veloce Line	384.0	46.0	22.10	Genoa	Valparaiso	General	1,050	5,531	3,774
Agwimex [1]	20	9.40	20	12.46	20	20.24	20	21.30	American	Atl. Gulf. & W. I. S. S. Co	480.0	66.0	22.0	Baltimore	San Pedro	Ballast		9,394	6,306
Chattanooga City	20	13.00	20	13.15	20	21.37	21	3.27	American	U. S. Steel Products Co	442.0	56.2	25.6	Baltimore	Seattle	General	8,265	7,611	5,450
Junin	20	4.50	21	4.20	21	12.24	21	13.32	British	Pacific Steam Navigation Co	391.5	50.0	24.0	Hull	Talcahuano	General	1,801¾	5,933	4,282
Manuel Arnus	20	8.17	21	5.40	21	14.00	23	19.53	Spanish	Cia Trasatlantica	434.0	56.0	21.0	Barcelona	Valparaiso	General	324	7,732	5,518
W. M. Irish [1]	20	14.15	21	6.30	21	14.50	21	15.58	American	Atlantic Refining Co	435.0	56.0	20.0	Brunswick	San Pedro	Ballast		7,387	5,443
Pacific	20	20.15	21	7.15	21	15.28	21	22.00	American	Argonaut Steamship Co	399.7	56.2	25.6	New York	San Francisco	General	7,964	6,479	4,709
Yorba Linda [1]	20	23.10	21	8.10	21	16.20	21	17.20	American	General Petroleum Co	435.0	56.0	21.0	Philadelphia	San Pedro	Ballast		7,424	5,077
Agwistone [1]	21	12.07	21	12 25	21	20.29	21	21.20	American	Atl. Gulf & W. I. S. S. Co	499.9	68.1	21.6	New York	Los Angeles	Ballast		10,853	7,804
Orleans	21	12.17	21	12.45	21	21.25	22	7.48	American	Oriental Navigation Co	395.0	55.0	27.0	Norfolk	Pearl Harbor	Navy coal	9,128	7,330	5,233
Curlew [3]			21	5.55	21	13.57	21	2.07	American	U. S. Navy				Cristobal	Balboa	Ballast			
Teucer	21	13.10	22	4.35	22	12.20	22	13.15	British	Alfred Holt & Co	486.0	58.5	28.0	Boston	Shanghai	General	6,300	9,366	6,474
Victolite [1]	21	15.55	22	6.00	22	13.33	22	14.53	British	Imperial Oil Co	500.4	68.0	23.0	Halifax	Talara	Ballast		11,049	7,732
Hurliness	21	17.35	22	6.12	22	14.49	22	16.06	British	St. Just Steamship Co	325.0	47.0	12.10	Newcastle	San Francisco	Ballast		3,491	2,581
Celtic Prince	21	18.00	22	7.40	22	15.43	22	16.30	British	Prince Line, Ltd	473.0	57.0	27.10	New York	Honolulu	General	8,362	8,699	6,208
E. T. Bedford [1]	22	1.15	22	7.55	22	16.20	22	17.21	American	Standard Oil Co	499.2	68.1	20.6	New York	San Pedro	Ballast		11,009	7,967
Virginian	22	6.50	22	8.55	22	17.09	22	17.55	American	American-Hawaiian Line	491.6	58.2	21 6	Savannah	Portland	General	6,000	10,491	7,546

[1] Tanker. [2] Launch. [3] Tug.

Norway Maru	22	7.50	22	9.28	22	18.49	23	3.42	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	22.0	Baltimore	Callao	Coke	5,025	6,254	1,705
Port Bowen	22	8.23	22	10.45	22	19.44	22	20.59	British	Commonwealth & Dom. Line	479.0	62.0	25.0	London	Prisbane	General	7,625	10,745	7,849
Kermit	22	10.13	22	11.40	22	21.08	23	2.45	American	United American Line	471.0	59.0	20.0	Hamburg	Vancouver	General	4,223	9,032	6,655
Albert Jeffress	22	13.05	22	13.15	22	21.29	23	3.04	American	Garland Line	384.6	51.2	15.0	Philadelphia	Shanghai	General	2,000	6,347	4,453
Japan Arrow	22	20.12	23	4.50	23	11.51	23	13.04	American	Standard Transportation Co.	468.3	62.7	20.0	Baltimore	Los Angeles	Ballast		10,084	7,426
Munindies	23	3.00	23	5.50	23	13.01	23	14.03	American	Munindies Steamship Co.	370.0	53.1	19.3	Baltimore	Seattle	General	4,000	5,525	4,097
Agwisnith [1]	23	4.20	23	6.30	23	14.10	23	15.13	American	Atlantic Gulf & W. I. S. S. Co.	499.9	68.1	23.5	New York	San Pedro	Ballast		10,853	7,736
Hesperos	23	6.45	23	7.25	23	15.15	23	16.20	Norwegian	Bruusgaard Kiosterud & Co.	389.8	51.1	16.0	Philadelphia	Callao	Explosives	136	5,693	4,230
Jamaica	19	22.30	23	10.00	23	18.58	23	20.59	British	Pacific Steam Navigation Co.	220.0	33.0	11.3	Cristobal	Buenaventura	General	240	1,187	622
Vinita [1]	23	9.55	23	10.00	23	18.19	23	21.01	American	Sudden & Christensen	410.5	54.0	22.6	Savannah	Los Angeles	General	6,508	6,572	4,910
Tulsagas	23	11.50	23	12.05	23	19.30	24	0.49	American	McAllister Bros. (S. B.)	431.0	59.2	18.0	New York	San Pedro	Ballast		7,817	5,049
Santa Olivia	23	3.40	23	13.15	23	20.42	23	21.29	American	Grace Line	404.0	53.9	21.6	Baltimore	San Francisco	General	4,893	6,779	4,921
Merton Hall	23	10.10	23	13.40	23	21.34	23	22.34	British	Ellerman-Hall Line	393.7	50.3	25.10	New York	Rockhampton	General	5,473		
Ruby [4]	21		23		23	14.08			American	E. J. Hooper				Cristobal	Gatun Lake	Ballast		1	1

[1] Tanker. [4] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

La Habra [1]	15	11.30	17	6.35	18	17.30	18	17.30	American	Union Oil Co. of California	424.8	57.0	26.0	San Pedro	Beaumont	Ballast		7,053	5,051
Hardenburg	17	11.20	17	12.19	17	21.23	18	6.24	Dutch	Vinke	325.9	48.4	22.6	Antofagasta	Colon [8]	Nitrate	5,150	4,133	2,863
Bethore	18	6.25	18	7.23	18	19.45	18	21.00	American	Ore Steamship Corporation	550.3	72.2	33.0	Cruz Grande	New York	Iron ore	19,600	15,476	4,354
Apurimac	18	5.00	18	8.10	18	21.45	20	13.25	Peruvian	Peruvian Line	382.0	48.2	26.6	Pisco, Peru	Liverpool	General	5,144	4,867	3,644
Trevilley	18	4.30	18	8.30	18	20.17	18	22.05	British	Hain Steamship Co.	369.8	51.0	23.10	Tocopilla	Wilmington	Nitrate of soda	7,100	5,189	3,914
Benlomond	18	13.00	18	14.14	18	22.10	19	6.08	British	Ben Line, Ltd.	405.0	51.5	23.3	Vancouver	Marseilles	Wheat	6,366	5,179	3,573
Norman Monarch	18	12.30	18	14.27	18	22.52	18	22.52	British	Wessel, Duval & Co.	400.0	52.0	24.9	Iquique	Colon [8]	Nitrate of soda	7,700	5,568	4,146
Santa Elisa	18	10.50	18	14.41	18	23.25	18	24.00	American	Grace Line	360.3	51.7	25.0	Talcahuano	New York	General	4,302	5,957	4,325
Sciota [5]			18	13.30	18	21.00			American	U. S. Navy	155.0	30.0		Balboa	Cristobal				
H. M. Storey [1]	18	19.45	19	6.22	19	14.30	19	15.30	American	Standard Oil Co.	500.0	68.2	29.0	Los Angeles	New York	Crude oil	16,200	11,224	7,849
Ardmore [1]	18	21.00	19	7.13	19	18.07	19	18.07	American	Standard Oil Co.	449.5	59.6	27.0	San Pedro	New York	Crude oil	10,000	8,612	6,457
Robert Luckenbach	18	20.57	19	7.59	19	18.50	19	18.50	American	Luckenbach Lines	445.0	58.0	25.6	Portland	Boston	General, lumber	8,000	8,695	6,375
George Washington	18	23.00	19	9.34	19	19.50	19	19.50	Norwegian	Peter Olsen	425.5	55.3	29.6	San Francisco	Dublin	General	10,000	7,505	5,626
Min	19	4.30	19	10.23	19	21.30	19	21.30	British	Hain Steamship Co.	400.4	53.1	26.6	Caleta Colosa	New Orleans	Nitrate	7,821	6,156	4,478
Jamaica	19	12.10	19	12.57	19	22.30	23	10.00	British	Pacific Steam Navigation Co.	229.0	33.1	14.2	Corinto	Cristobal	General	910	1,187	622
Canadian Challenger	19	13.30	19	14.25	19	23.11	20	9.50	British	Canadian Govt. Mer. Marine	400.1	52.2	16.0	Brisbane	Halifax	General	1,140	6,142	4,354
Solome [6]	19	4.30	20	6.31	20	18.25	20	19.10	American	U. S. Army	448.0	58.0	24.0	San Francisco	New York	General	1,600		
James McGee [1]	20	1.00	20	7.28	20	20.25	20	20.25	American	Standard Oil Co.	499.1	68.2	30.6	San Pedro	New York	Crude oil	14,990	10,961	7,909
Salvador	20	3.50	20	7.59	20	19.50			British	Pacific Steam Navigation Co.	225.0	35.4	16.7	Champerico	Cristobal	(9)	1,023	1,270	735
Gibraltar	20	8.30	20	10.11	20	21.10	20	21.55	British	Glen & Co.	365.0	57.0	25.0	Iquique	Charleston	Nitrates	6,700	4,770	3,468
Ruapehu	20	6.00	20	12.43	20	10.35	21	5.20	British	New Zealand Shipping Co.	457.5	58.2	22.3	Auckland	London	Frozen, general	5,090	9,079	6,798
Canadian Transporter	20	12.00	20	14.03	20	23.25	21	9.40	British	Canadian Govt. Mer. Marine	400.0	52.4	24.6	Prince Rupert	Avonmouth	Grain, lumber	6,800	6,228	4,491
Romanstar	20	8.00	21	6.18	21	14.30	21	14.30	British	Blue Star Line	420.0	54.0	23.8	San Francisco	London	General, refrig.	6,000	7,433	5,870
Nordlys	21	0.45	21	7.40	21	18.55	21	20.00	Danish	Wessel, Duval & Co.	362.0	51.5	23.6	Tocopilla	Panama [8]	Nitrate of soda	6,307	4,932	3,468
Argonne [7]	19	8.30	21	8.35	21	18.25	21	23.30	American	U. S. Navy	458.0	48.0	22.0	San Francisco	New York	Naval stores	305		

[1] Tanker. [5] Tug. [6] Army transport. [7] Navy transport. [8] For orders. [9] Coffee, sugar, and indigo.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Acme [1]	21	3.30	21	9 15	21	20.05	21	20 05	American	Standard Transportation Co	435.0	56.0	26.6	Los Angeles	Providence	Crude oil	9,514	7,165	4,926
Eagle	21	8 00	21	10.30	21	20 50	21	20.50	American	United American Lines	410.0	55.0	26.0	Portland	New York	Lumber, general	7,530	8,243	6,266
Centaurus	21	10.10	21	12.29	21	21.35	22	1.00	American	Planet Steamship Corporation	409.1	54.2	19.0	San Francisco	Boston	([11])	2,990	6,581	4,795
San Francisco Maru	21	21.40	22	7.06	22	19.00	23	1.20	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.1	Vancouver	Azores [10]	Wheat	7,403	6,245	4,704
Madison	22	0.15	22	7.51	22	19.55	22	22.20	American	Linton Steamship Lines	428.9	47.7	27.6	Vancouver	New York	Lumber	4,000	5,129	3,251
Nile	22	3.20	22	8.36	22	20.20	22	23.10	British	Glen & Co	423.5	56.0	25.6	Mejillones	Colon [10]	Nitrate	8,950	6,319	4,552
Iowa	22	4.30	22	9.09	22	21.35	23	14.33	French	French Line	450.0	53.0	27.0	Vancouver	Havre	General	8,364	7,469	5,020
Levenpool	22	5.00	22	9.50	22	22.30	23	15.40	British	Sir R. Repner & Co	376.0	57.0	22.6	Vancouver	Colon [10]	Wheat	7,602	5,911	4,371
Isonzo	22	7.30	22	10.57	22	22.45	22	23.35	Italian	Navigazione Libera Triestina	404.1	53.9	25.0	Caleta Colosa	New Orleans	Nitrate	8,008	5,564	4,009
Cape Cod [1]	22	2.10	22	11.01	22	23.38	22	23.38	American	Pure Oil Steamship Co	425.8	57.0	27.0	San Pedro	Bayonne	Crude oil	10,318	7,218	5,184
Eleonore	22	3.15	22	12.23	23	0.22	23	3.35	German	Regendang	349.5	43.1	25.5	Portland	Cork	Wheat	4,830	3,852	2,717
Agwisun [1]	23	0.01	23	7.40	23	18.25	23	18.25	American	Ward Line	429.3	59.2	27.0	San Pedro	Fall River	Crude oil	9,661	7,612	5,402
Hagood [1]	23	2.20	23	8.25	23	19.05	23	19.05	American	Cities Service Corporation	435.6	56.2	29.0	San Pedro	Boston	Crude oil	10,000	7,426	5,094
Sabine Sun [1]	23	10.00	23	12.03	23	20.30	23	20.30	American	Sun Oil Co	429.3	59.2	28.0	Los Angeles	Chester	Crude oil	10,500	7,621	5,277
Athenic	23	5.00	23	13.45	23	2.40	24	6.05	British	White Star Line	500.3	63.3	27.0	Wellington	London	([12])	6,431	12,896	9,571
Huallaga	23	3.00	23	14.19	23	2.55	....	.....	Peruvian	Peruvian Line	360.0	44.7	22.0	Callao	Cristobal	General	2,314	4,514	2,386

[1] Tanker. [10] For orders. [11] General and canned goods. [12] Refrigerated and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
February 17.	Cartago	United Fruit Co	New Orleans via Habana.
February 19.	San Benito	United Fruit Co	Boston via Habana.
February 20.	Carrillo	United Fruit Co	New York via Kingston.
February 20.	Apurimac	Peruvian Line	High seas for repairs.
February 21.	Sixaola	United Fruit Co	Colombian ports.
February 21.	Abangarez	United Fruit Co	New Orleans via Habana.
February 21.	Cartago	United Fruit Co	Bocas del Toro.
February 21.	Camden	United Fruit Co	Houston, Tex.
February 22.	Ulua	United Fruit Co	New York via Cuba and Jamaica.
February 23.	Bayano	Elders & Fyffes, Ltd	Port Limon.
February 23.	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.

*DEPARTURES.

Date.	Vessel.	Line.	For—
February 17	Cartago	United Fruit Co	Bocas del Toro.
February 18	Philadelphian	Leyland Line	Cardenas.
February 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
February 19	Ulysses [13]	Panama Railroad Steamship Line	Norfolk.
February 19	San Benito	United Fruit Co	Boston via Port Limon.
February 21	Carrillo	United Fruit Co	Colombian ports.
February 21	Sixaola	United Fruit Co	New York via Kingston.
February 21	Abangarez	United Fruit Co	New Orleans via wayports.
February 21	Cartago	United Fruit Co	New Orleans.
February 23	Ulua	United Fruit Co	New York via wayports.
February 23	Bayano	Elders & Fyffes, Ltd	Kingston.
February 23	Camden	United Fruit Co	Baytown via Tampico.

[13] Collier.

* Other than ships passing through the Canal.

Traffic Prospects.

Cargo handled through the Panama Canal in January, 1924, totaled 2,427,332 tons, very little less than the December record of 2,494,634 tons, and greater than the total for any previous month. The tonnage of California crude oil has fallen off 175,000 odd tons a month since September, 1923, but thus far the general traffic has increased at a rate sufficient to neutralize the loss in oil.

UNITED STATES INTERCOASTAL TRAFFIC.

The number of vessels recently withdrawn from the United States intercoastal trade by the Garland Line, the American-Hawaiian Line, the United American Lines, etc., is reported to be 23. According to figures published by the United States Shipping Board, the number of cargo ships engaged in this trade on October 1, 1923, was 145. A reduction of 23 would be equivalent to 15.8 per cent.

A subsequent withdrawal has been that of the Shipping Board's refrigerator steamer *Wheaton*, operated by the Elder-Mittnacht Corporation. This ship, which is rated at 10,200 tons (deadweight) made three round voyages in 1923, with cargoes averaging 3,552 tons westbound and 3,181 tons eastbound. At the time it was withdrawn the Shipping Board announced that the *Neponset*, a similar vessel engaged in the same service, would also be withdrawn unless it received greater support.

The westbound cargo handled in the intercoastal trade in January, 1924, totaled 234,037 tons, as compared with 231,898 tons in January, 1923, and a monthly average of 245,405 tons for the calendar year, 1923. The figures for eastbound cargo are of little value in estimating conditions, since crude oil in bulk is lumped with other cargo.

An improvement is indicated by various reports. The United American Lines intend to return to the intercoastal service a steamer that has been chartered for trans-Pacific lumber. The Luckenbach Line has improved its service between Pacific Coast and Gulf Ports, and its Pacific Coast manager is quoted in the San Francisco *Shipping Register* as reporting a marked improvement in cargo offerings, both eastbound and westbound, since the first of the year. Increased lumber shipments are predicted. *The West Coast Lumberman* for January 15, says:

"The Atlantic market appears to be in excellent shape. It is said that there are no stocks of Pacific Coast lumber in shippers' hands back East at the present time and that wholesalers and retailers are clamoring for stocks. The open fall enabled building to proceed at an almost unprecedented rate, and stocks arriving from the west coast have moved into consumers' hands much more rapidly than usual during the winter months."

The same publication under date of February 1 reports:

"The truth of the matter is that offsetting this lack of Japanese business, has been the biggest trade from the Atlantic coast that we have ever known. In fact so much business has been booked for Atlantic coast shipment that it is impossible at the present time to obtain space on vessels operating in the coast to coast service even way up into the summer."

Northwest lumber in transit through the Canal in January, 1924, totaled 109,093 tons, as compared with 118,870 tons in January, 1923, and an average of 115,923 tons for the calendar year, 1923.

Crude oil from the California fields totaled 732,021 tons in January, 1924, the lowest figure since March, 1923. September, 1923, was the peak month, with 909,879 tons. While this decline was not unexpected,

the San Francisco *Shipping Register* for January 19 reports: "The recent advance in the intercoastal tanker trade is shown in the fixture of a boat from California to North of Hatteras at 75 cents, and a boat from Tampico to Philadelphia at 33 cents. New York brokers look for a California rate in the near future of 80 cents." This may be taken as an indication that there is still plenty of oil in sight.

The January number of *The Pacific Marine Review* contains an interesting article on "Intercoastal Refrigerative Shipping." Fruit shipments from California total 100,000 carloads a year, and the railroads still retain all but a small fraction of this business, very little having been diverted to the Panama Canal. After considering various phases of the problem, the author concludes:

"The 100,000 carloads of fruit going out of California are distributed over the whole United States and adjacent countries, some going to Europe through transshipment at Atlantic ports. Probably the contents of 50,000 of these cars is consumed within one-day freight schedule of the Atlantic seaboard. If some arrangement could be made that would divert rail shipments to suit the arrival of steamer loads, and a terminal at each of the important Atlantic ports was built for distributing the fruit to market, here is ready to hand one-way cargoes for a large number of steamers.

"The problem is not so much a steamer operating problem as an engineering problem of collection, terminal storage and distribution. Its successful achievement would be worth many millions to the fruit growers of California, and it should be worked out and controlled from the angle of the fruit grower.

"Selling price of the fruit, depending on market conditions and quality of product, is more important than cheap transportation. The only way that these factors can be reconciled is by a thoroughly coordinated rail and water, or truck and water service, with ample specialized terminal facilities."

PACIFIC NORTHWEST AND EUROPE.

Cargo moving from Europe to the Pacific coast of North America (United States and Canada), totaled 57,954 tons in January, 1924, as compared with 64,661 tons in January, 1923, and a monthly average of 54,640 tons for the calendar year, 1923. Cargo moving from the west coast of North America to Europe in January, 1924, totaled 219,973 tons, as compared with 233,653 tons in January, 1923, and a monthly average for the calendar year, 1923, of 142,207 tons. Wheat shipments from northwest American and Canadian ports in January, 1924, totaled 135,011 tons, and in January, 1923, 134,517 tons. While these totals are nearly the same, Canadian shipments show an increase, and American shipments a decrease. The total grain shipments for the season are still materially below the shipments of the previous year.

It is reported that the Furness-Prince Line plans to add three 15-knot freight steamers, with limited passenger accomodations, to its fleet of 10 freighters already operated between the Pacific northwest and Europe.

FAR EAST.

Cargo moving from the United States to the Far East, through the Panama Canal, totaled 185,909 tons in January, 1924, as compared with 82,804 tons in January, 1923, and a monthly average of 124,995 tons for the calendar year, 1923. The increase may be attributed mainly to Japanese reconstruction, the effects of which should be felt for some time to come. As compared with the December tonnage of 203,538, the January figures show a slight falling off.

AUSTRALASIA.

Cargo moving from the United States to Australasia in 1923 was heavier than in previous years, averaging 45,589 tons a month, and January, 1924, was close to this figure with 44,157 tons. Exports from Europe to Australasia in January, 1924, were 39,054 tons, and the monthly average for 1923 was approximately the same, 39,343 tons.

SOUTH AMERICA.

Nitrate shipments, the most important single item in west coast South American trade, continue on a large scale. The January nitrate tonnage was 272,998, even higher than the record December tonnage of 272,714. Shipments of iron ore from Chile were also unusually high, 79,400 tons. This figure has been exceeded only in one month, July, 1923. Copper from Chile and Peru totaled 17,653 tons, which is also an unusual but not a record figure. The whole trade is shown in the following table:

Period.	South American exports.		South American imports.	
	To Europe.	To United States.	From Europe.	From United States.
	Tons.	*Tons.*	*Tons.*	*Tons.*
January, 1924	153,445	270,495	51,350	23,967
January, 1923	162,755	165,051	57,046	19,256
Average, 1923	118,451	157,491	42,912	27,139

Ships at Colon Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended February 25, 1924:

Steamships *Jamaica*, repair hand pump, ballast pump, feed pump, sanitary pump, steering engine, steam pipe for winch, deck service pipe, hatch bar, lifeboat block, and gin blocks; manufacture two chains and one sling for handling cargo, etc.; barge *No. 147*, dock, clean, and paint; straighten and replace four stanchions; connect up one hand pump; fair dents in deck; renew old hatch coaming; install 8 channels in way of hatches; refasten 5 chocks and renew one 30-inch chock; install new fairlead; renew about 500 rivets in hull, deck, and bulkheads; install new ceiling in hold and sides; blank off hatches as directed; paint fore and after peak tanks and outside of barge, etc.; steamships *Bologna*, repair winch and copper pipe for ice machine; forge one cargo boom clamp; *Lake Flattery*, rebore cylinder of circulating pump and fit new piston and rings, also new piston rod; rebore valve chamber and fit new valve; fit new seats and discs in main and auxiliary feed checks; overhall all surface and bottom blow valves on boilers, etc.

Minor repairs—Steamships *Salvador*, *Ulua*, and *General W. C. Gorgas*, schooner *Arabia* and motor schooner *Laura C. Hall.*

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending February 23, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Acajutla	Pacific Steam Navigation Co	Februray 17	February 17	.....	18
Santa Elisa	Grace Line	February 18	February 18	38	.....
Somme	U. S. Army	February 19	February 20	35	55
Jamaica	Pacific Steam Navigation Co	February 19	February 19	1	.....
Argonne	U. S. Navy	February 19	February 21	1	.....
Rhodopis	Kosmos Line	February 20	February 20	.....	138
Jamaica	Pacific Steam Navigation Co	February 23	February 23	.....	4

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending February 23, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Amassia	Hamburg-American Line		February 10		1,231
Arana	Pacific Steam Navigation Co		February 10		281
Heredia	United Fruit Co	February 10	February 10	251	109
Yuma	American Banana Corporation	February 10	February 11	(1)	153
Ucayali	Peruvian Line	February 10	February 12	2,012	(2)
Kinderdijk	Holland-American Line	February 10	February 11	149	(3)
Amor	Royal Netherlands W. I. Mail	February 10	February 11	20	1,150
Essequibo	Pacific Steam Navigation Co	February 10	February 11	249	56
Van Rensselaer	Royal Netherlands W. I. Mail	February 11	February 12	75	(2)
Lochgoil	Pacific Steam Navigation Co	February 11	February 12	149	264
Puerto Rico	French Line	February 12	February 13	31½	898
Acajutla	Pacific Steam Navigation Co	February 12		1,115	
Turrialba	United Fruit Co	February 12	February 14	1,199	314
Philadelphian	Leyland Line	February 12		754	
Ansaldo San Giorgio III	Societa Nazionale di Navigazione	February 13	February 14	85	4
Cristobal	Panama Railroad Steamship Line	February 13		2,049	
Sixaola	United Fruit Co	February 13	February 14	124	285
Santa Teresa	Grace Line	February 13	February 14	(1)	1½
Heredia	United Fruit Co	February 13	February 13	66	¾
Metapan	United Fruit Co	February 14	February 14	(1)	30
Alvarado	Pacific Steam Navigation Co	February 14	February 15	1,384	18½
Ebro	Pacific Steam Navigation Co	February 14	February 15	31	10
Hector	Royal Netherlands W. I. Mail	February 14	February 15	201	6
Pastores	United Fruit Co	February 15	February 16	271	181
Adalia	Hamburg-American Line	February 15	February 16	76	145
Van Rensselaer	Royal Netherlands W. I. Mail	February 15	February 16	(1)	1,041
Ucayali	Peruvian Line	February 15	February 16	(1)	812
Orita	Pacific Steam Navigation Co	February 15	February 15	(1)	7
Oroya	Pacific Steam Navigation Co	February 15	February 16	87	103
Esparta	United Fruit Co	February 16	February 16	50	157
Amersfoort	Royal Netherlands W. I. Mail	February 16	February 16	(1)	145
Acajutla	Pacific Steam Navigation Co		February 17		873
Cartago	United Fruit Co	February 17	February 17	217	171
Cristobal	Panama Railroad Steamship Line		February 19		3,075
Apurimac	Peruvian Line	February 18	February 20	73	(2)
Delft	Royal Netherlands W. I. Mail	February 18	February 20	79	65
Santa Elisa	Grace Line	February 18	February 18	33	¼
Caeique	Grace Line	February 19	February 20	184	32
Junin	Pacific Steam Navigation Co	February 20	February 21	28	134
Jamaica	Pacific Steam Navigation Co	February 19	February 23	920	240
San Benito	United Fruit Co	February 19	February 20	11	101
Bologna	La Veloce Line	February 19	February 20	157	(2)
Salvador	Pacific Steam Navigation Co	February 19		1,022	
Manuel Arnus	La Veloce Line	February 20	February 21	198	(2)
Carrillo	United Fruit Co	February 20	February 21	99	313
Sixaola	United Fruit Co	February 21	February 21	21	38
Cartago	United Fruit Co	February 21	February 21	1	(3)
Camden	United Fruit Co	February 21	February 22	8,987	(2)
Abangarez	United Fruit Co	February 21	February 21	733	(2)
Ulua	United Fruit Co	February 22	February 23	177	331
Santa Olivia	Pacific Mail Steamship Line	February 23	February 23	338	134
Bayano	Elders & Fyffes, Ltd	February 23	February 23	10	(2)
Huallago	Peruvian Line	February 23		2,314	

[1] No cargo discharged. [2] No cargo laded. [3] 3 packages.

Official Circular.

Cable Rates.

PANAMA RAILROAD COMPANY,
BALBOA HEIGHTS, C. Z., February 16, 1924.

CIRCULAR NO. RA. 36:

To all concerned—Supplemental to Circular No. RA. 19, May 28, 1923, the All America Cables, Inc., advise the following changes in rates on cablegrams:

Effective immediately week end letter rates to all points in United States and Canada now one-quarter of full tariff rate. Twenty word minimum plus Panama Railroad Company's local telegraph charge of 20 cents for the first 10 words or fraction thereof, and one cent for each word thereafter.

ELWYN GREENE,
Auditor, The Panama Canal.

Approved and compliance directed:
W. F. FOSTER,
Acting Superintendent, P. R. R. Co.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., March 5, 1924. No. 30.

Traffic in February.

The number of commercial transits through the Panama Canal during the month of February, 1924, was 418. In addition to commercial vessels, there were 9 small launches passing through the Canal on which tolls were paid but which are not taken up in the commercial transits, and 22 transits of Government vessels on which no tolls were collected, making the total transits of all kinds during the month 449.

Tolls for the month aggregated $1,964,155.59 on the 418 commercial vessels and $26.45 on the 9 launches, making the total tolls for the month $1,964,182.04. This is not quite up to the $2,000,000 mark made by every month of the fiscal year beginning with July, 1923, except September and October, but would have been had the month been one of the ordinary length, 30 or 31 days.

The average daily tolls on all traffic for the month were $67,730.42 and the daily average of all transits was 15.48.

Detail of the month's traffic segregated by directions, is as follows:

	VESSELS.				TOLLS.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches	Totals.
Atlantic to Pacific	219	6	10	235	$963,469.60	$21.20	$963,490.80
Pacific to Atlantic	199	3	12	214	1,000,685.99	5.25	1,000,691.24
Totals	418	9	22	449	1,964,155.59	26.45	1,964,182.04

The following tabluation shows the monthly totals, and the daily average of transits and tolls during the fiscal year beginning July 1, 1923, for commercial vessels only:

Month.	AGGREGATE MONTHLY.		DAILY AVERAGE.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,355,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
Totals	3,604	16,661,477.31	14.77	68,284.74

The average amount of tolls paid by each commercial vessel transiting the Canal during February, 1924, was $4,698.94.

Cargoes in Excess of 10,000 Tons.

During the month of January, 1924, 64 vessels carrying 10,000 tons or more of cargo transited the Canal. Mineral oil products was the commodity carried in most instances, the classification by cargo being

as follows: Mineral oil products, 51; general cargo, 5; iron ore, 4; nitrate, 3; coal, 1.

Of these 64 vessels, 59 were en route from the Pacific to the Atlantic, and 5 from Atlantic to Pacific ports.

The total number of commercial transits in January was 476. This included 66 tank ships and 47 general cargo vessels which were in ballast. Accordingly, of the 363 laden vessels, practically one in every 6 carried as much as 10,000 tons or more of cargo. The average cargo for all laden vessels was 6,687 tons.

Cable Ship Carries Wheat to London.

The United States cable ship *Dellwood*, transited the Canal on February 11, 1924, en route from Seattle to the British Isles, carrying 1,000 tons of bulk wheat in her 5 steel cable tanks.

The wheat will be discharged at London, where 3,500 tons of gutta percha incased cable wire will be taken aboard.

The *Dellwood* is a Government-owned vessel, operated by the U. S. Army, and her return cargo of cable will be used in laying a line from Seattle to Alaska.

Leading American Steamship Lines Operating Through Canal.

A classification of Canal traffic for the month of January, 1924, showing the number of transits, Panama Canal net tonnage, and cargo tonnage of the principal steamship lines operating through the Canal under the American flag, and segregated between United States intercoastal and nonintercoastal traffic, is given in the following statement:

		U. S. Intercoastal Traffic.			Other than Intercoastal.		
		No. of transits.	Canal net tonnage.	Tons of cargo.	No. of transits.	Canal net tonnage.	Tons of cargo.
Standard Oil Co.	Atlantic to Pacific	24	173,199	.....	1	4,946	.....
	Pacific to Atlantic	18	118,071	227,828	.....	.....	.....
American-Hawaiian Line	Atlantic to Pacific	8	41,237	32,544	.....	.....	.....
	Pacific to Atlantic	7	40,517	30,321	.....	.....	.....
Luckenbach Line	Atlantic to Pacific	7	47,404	46,592	.....	.....	.....
	Pacific to Atlantic	5	29,444	30,566	.....	.....	.....
Pan-American Petroleum Co.	Atlantic to Pacific	3	19,199	.....	2	10,635	.....
	Pacific to Atlantic	10	56,979	115,521	.....	.....	.....
Tidewater Oil Co.	Atlantic to Pacific	6	36,557	.....	.....	.....	.....
	Pacific to Atlantic	3	16,732	33,000	.....	.....	.....
Isthmian Line	Atlantic to Pacific	5	24,527	39,732	4	21,658	32,001
	Pacific to Atlantic	1	5,450	6,457	2	9,903	14,805
Ore Steamship Co.	Atlantic to Pacific	.....	.....	.....	3	12,948	.....
	Pacific to Atlantic	.....	.....	.....	4	22,296	79,200
Pacific Mail Steamship Co.	Atlantic to Pacific	4	18,329	16,903	2	3,756	2,442
	Pacific to Atlantic	3	14,012	13,315	2	3,142	3,007
Sun Oil Co.	Atlantic to Pacific	4	23,281	.....	.....	.....	.....
	Pacific to Atlantic	3	17,316	35,573	.....	.....	.....
Grace Line	Atlantic to Pacific	.....	.....	.....	3	12,381	6,784
	Pacific to Atlantic	.....	.....	.....	4	11,874	11,051
Ward Line	Atlantic to Pacific	2	11,564	.....	1	6,965	.....
	Pacific to Atlantic	5	33,371	61,712	.....	.....	.....
Transmarine Steamship Corp.	Atlantic to Pacific	4	10,448	16,227	.....	.....	.....
	Pacific to Atlantic	3	7,836	10,722	.....	.....	.....
McAllister Brothers	Atlantic to Pacific	1	5,049	.....	.....	.....	.....
	Pacific to Atlantic	4	20,866	39,100	.....	.....	.....
Pure Oil Steamship Co.	Atlantic to Pacific	2	10,386	.....	.....	.....	.....
	Pacific to Atlantic	3	15,257	30,615	.....	.....	.....
C. D. Mallory & Co.	Atlantic to Pacific	2	10,956	.....	.....	.....	.....
	Pacific to Atlantic	3	15,806	29,770	.....	.....	.....
Walker & Daly	Atlantic to Pacific	2	10,283	.....	.....	.....	.....
	Pacific to Atlantic	3	15,404	29,305	.....	.....	.....
Atlantic Refining Co.	Atlantic to Pacific	1	5,101	.....	.....	.....	.....
	Pacific to Atlantic	3	18,444	35,500	.....	.....	.....
Panama-Pacific Line	Atlantic to Pacific	2	20,615	3,195	.....	.....	.....
	Pacific to Atlantic	2	18,143	8,842	.....	.....	.....

		U. S. Intercoastal Traffic.			Other than Intercoastal.		
		No. of transits.	Canal net tonnage.	Tons of cargo.	No. of transits.	Canal net tonnage.	Tons of cargo.
Standard Transportation Co	Atlantic to Pacific	3	15,446	.....	1	7,426	11,205
	Pacific to Atlantic	.....	.....	.....	.....	.....	.....
United American Lines	Atlantic to Pacific	1	4,625	5,485	1	4,161	4,653
	Pacific to Atlantic	3	15,080	20,358	.....	.....	.....
Miscellaneous	Atlantic to Pacific	22	101,628	73,359	11	43,307	44,532
	Pacific to Atlantic	20	95,679	150,802	9	44,148	48,524
Totals	Atlantic to Pacific	103	589,834	234,037	29	128,183	101,617
	Pacific to Atlantic	99	554,407	909,307	21	91,363	156,947

From the above it will be seen that of the total traffic passing through the Canal during January, 1924, flying the American flag, vessels in the United States intercoastal traffic made up 80 per cent of the total transits, 84 per cent of the net tonnage, and 81½ per cent of the total cargo tonnage.

The traffic other than intercoastal, briefly summarized, was as follows:

		No. of transits.	Panama Canal net tonnage.	Tons of cargo.
Between United States and South America	Atlantic to Pacific	9	33,728	12,643
	Pacific to Atlantic	10	42,067	99,483
Between United States and Far East	Atlantic to Pacific	10	56,392	83,043
	Pacific to Atlantic	2	12,819	11,087
Between United States and Europe	Atlantic to Pacific	3	16,042	4,653
	Pacific to Atlantic	2	8,847	14,550
Miscellaneous routings	Atlantic to Pacific	7	22,021	1,278
	Pacific to Atlantic	7	27,630	31,827

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 1, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Teno	Chilean Line	February 24	February 25	.....	350
Ansaldo San Giorgio	Societa Nazionale di Navigazione	February 24	February 25	66	(2)
Lake Flattery	Panama Railroad Steamship Line	February 24	February 26	732	78
General W. C. Gorgas	Panama Railroad Steamship Line	February 24	February 29	1,829	2,440
Carolyn	Grace Line	February 25	February 26	41	(2)
Parismina	United Fruit Co.	February 25	February 26	269	(2)
Venezuela	Pacific Mail Steamship Co	February 25	February 26	2,425	157
Denderah	Kosmos Line	February 25	February 26	51	36
Almagro	Pacific Steam Navigation Co.	February 25	February 26	39	403
Governor	Harrison Line	February 26	February 27	427	(2)
Georgie	French Line	February 26	February 26	13	135
West Mahwah	Shipping Board	February 26	February 27	226	(2)
Leon XIII	Cia. Trasatlantica	February 26	February 28	282	450¼
Huallago	Peruvian Line	.....	February 28	.....	656½
Santa Marta	United Fruit Co.	February 27	February 28	206	88
Atenas	United Fruit Co.	February 27	February 28	900	81
Haarlem	Royal Netherlands W. I. Mail	February 27	February 28	(1)	179
Crijnssen	Royal Netherlands W. I. Mail	February 27	February 27	97	5
Macoris	French Line	February 28	March 1	212	1,864½
Newport	Pacific Mail Steamship Co	February 28	February 29	1,545	(2)
Carrillo	United Fruit Co.	February 28	February 28	2	47
Adalia	Hamburg-American Line	February 29	March 1	85	1,189½
Aconcagua	Chilean Line	February 29	March 1	72	(2)
Colombia	Pacific Mail Steamship Co	February 29	March 1	154	333¼
Toloa	United Fruit Co.	February 29	March 1	160	179

(1) No cargo discharged. (2) No cargo laded.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 1, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Commercial Trader	23	12.55	24	4.20	24	14.00	24	15.42	American	Honolulu Steamship Co	399.0	51.0	27.8	Mobile	Seattle	Pipe, general	7,200	6,190	4,455
Florence Luckenbach	23	14.57	24	5.42	24	14.54	24	16.05	American	Luckenbach Line	401.8	52.0	25.0	Mobile	Seattle	General	6,939	6,002	4,621
Anglo-Chilean	23	16.30	24	6.20	24	15.47	24	16.40	British	Nitrate Producers Steamship Co.	471.0	58.4	22.0	Barry	Vancouver	Ballast		9,302	6,615
South American	24	6.27	24	7.55	24	16.42	24	17.43	British	South American Steamship Corp	251.0	43.6	20.2	New York	Vancouver	Sulphur	3,068	2,444	1,593
Murex [1]	24	10.50	24	11.00	24	18.07	25	0.33	British	Anglo-Saxon Petroleum Co	412.2	53.0	18.0	Newcastle	Los Angeles	Ballast		6,279	4,361
Mahana	24	13.30	24	13.35	24	20.24	25	8.25	British	Shaw, Savill & Albion	499.7	63.0	27.6	London	Auckland	General	5,286	12,151	8,727
El Norte [2]	24		24	6.25	24	14.54	24	15.40	Panaman	Luis Estenoz	60.0	15.0		Cristobal	Balboa	Ballast		32	26
Teno	24	9.42	25	4.20	25	13.44	25	15.00	Chilean	Chilean Line	421.8	56.0	27.0	New York	Valparaiso	[4]	3,032	7,758	4,672
Ionic	24	19.30	25	5.30	25	14.35	25	21.48	British	Oceanic Steam Navigation Co.	500.3	63.3	28.6	London	Auckland	General	6,327	12,872	9,577
Ansaldo VIII	24	16.58	25	6.15	25	15.39	25	22.46	Italian	Transatlantic Italiana	386.0	49.0	16.6	Genoa	Valparaiso	General	1,935	5,521	3,599
Willhilo	24	21.58	25	7.10	25	16.42	25	21.42	American	Williams Steamship Line	434.3	57.7	22.0	Philadelphia	Seattle	General	5,904	7,983	5,882
Feltore [1]	25	5.10	25	8.00	25	17.20	26	1.17	American	Ore Steamship Co	449.0	57.2	18.6	Baltimore	Cruz Grande	Ballast		7,808	5,139
No. 285 [3]			25	7.55	25	17.42			American	U. S. Navy	105.0	14.8		Cristobal	Gatun and ret.	Ballast			
Bassano	25	12.14	26	4.45	26	12.28	26	13.48	British	Thos. Wilson Sons & Co	385.1	49.8	22.0	New York	Newcastle	General	3,392	4,869	3,425
Carolyn	25	12.30	26	5.35	26	14.14	27	1.15	American	A. H. Bull & Co	328.0	46.0	15.6	New York	Supe	General	2,548	3,644	2,566
Apple Branch	25	19.15	26	6.20	26	13.19	26	14.32	British	Nautilus Steamship Co	370.0	51.0	21.0	Liverpool	Corral	General	3,000	5,112	3,511
West Calera	26	2.45	26	7.10	26	15.30	26	16.35	American	Swayne & Hoyt (S. B.)	427.0	54.0	23.7	Buenos Aires	San Francisco	Coffee, general	7,360	6,617	4,931
Imlay [1]	26	2.55	26	8.00	26	16.51	26	18.15	American	Malston Co	425.0	57.0	18.6	Baton Rouge	San Pedro	Ballast		7,218	4,959
Clauseus	26	4.45	26	11.40	26	20.12	26	21.28	American	Planet Line	410.5½	54.0	24.6	New York	Vancouver	General	7,743	6,581	4,795
Almagro	25	14.45	26	13.00	26	21.14	26	22.34	British	Pacific Steam Navigation Co	303.0	43.0	17.0	New York	Callao	General	1,529	2,878	1,714
Georgie	26	6.27	26	13.25	26	21.51	26	23.08	French	French Line	405.0	52.0	25.1	Havre	Vancouver	General	4,563	6,830	4,932
Enrana [1]	27	0.25	27	6.15	27	13.45	27	14.42	American	New York Shipbuilding Co	419.5	56.5	21.0	New York	San Pedro	Ballast		6,989	4,976
Baltie [1]	27	1.08	17	8.00	27	16.02	27	17.45	Danzig	Baltic-American Petroleum Co	508.0	64.0	22.0	Southampton	San Pedro	Ballast		10,550	7,916
Sutorpco	27	11.30	27	12.07	27	20.05	28	0.05	American	Transmarine Corporation	324.0	46.2	22.0	Newark	Seattle	General	3,200	3,984	2,612
Governor	26	16.07	27	12.35	27	20.40	27	21.44	British	T. and J. Harrison	410.3	52.0	17.3	Liverpool	Vancouver	Ballast		6,683	4,775
Cape Henlopen [1]	27	13.00	27	13.10	27	21.10	28	0.35	American	Cape Steamship Co	434.8	56.2	20.4	New York	San Pedro	Ballast		7,425	5,202
Santa Ana	27	18.52	28	6.05	28	13.47	28	17.33	American	Grace Line	360.2	51.6	24.6	New York	Talcahuano	General	2,584	5,776	4,081
John D. Archbold [1]	27	18.59	28	6.25	28	14.59	28	16.05	American	Standard Oil Co	554.9	75.3	22.0	New York	San Pedro	Ballast		14,785	10,313
Jacob Luckenbach	27	21.20	28	7.20	28	15.11	28	16.10	American	Luckenbach Line	414.5	53.7	26.0	New York	San Francisco	General	6,500	7,315	5,270
Tuxpanoil [1]	27	21.35	28	7.25	28	15.45	28	16.48	American	McAllister Brothers (S. B.)	413.0	59.2	22.4	New York	San Pedro	Ballast		7,862	5,049
W. S. Rhem [1]	28	1.50	28	8.55	28	16.14	28	17.18	American	Standard Oil Co	500.0	68.2	22.0	New York	Los Angeles	Ballast		11,224	7,860
Huallaga	23	22.55	28	10.13	28	18.03	28	19.05	Peruvian	Peruvian Line	360.0	44.7	20.3	Cristobal	Ilo	General	655	4,514	2,386
Agwimars [1]	28	11.15	28	11.40	28	18.37	28	19.36	American	Atl. Gulf & W. I. S. S. Co	429.2	59.3	22.6	New York	Los Angeles	Ballast		7,596	5,209
Dacre Castle	28	10.47	28	11.40	28	19.10	28	20.38	British	James Chambers & Co	400.1	52.4	24.9	New York	Shanghai	General	6,193	5,846	4,112

[1] Tanker. [2] Motor schooner. [3] Subchaser. [4] 2,032 tons of general cargo and 1,000 tons of coal.

Port Pirie	28	10.15	28	13.20	28	21.24	29	1.20	British	Commonwealth & Dom. Line	470.1	58.4	27.4	London	Auckland	General	9,000	9,381	6,915
William Jones [5]	28	11.30	29	6.20	29	12.25	1	18.51	American	U. S. Navy	310.0	30.11½	9.4	Culebra Island	Puget Sound	Ballast			
Berga [6]	18	28.55	29	6.23	29	14.26	1	8.18	Norwegian	Norway-Pacific Line	362.4	51.4	25.8	Christiania	San Francisco	General	6,700	5,242	3,706
President Garfield	29	6.20	29	.750	29	15.17	29	21.05	American	Dollar Line	502.1	62.2	22.6	New York	Los Angeles	General	1,800	12,057	8,509
Wearbridge	29	6.30	29	8.05	29	15.59	29	17.15	British	Crosby MaGee & Co	360.0	49.0	23.0	Baltimore	Anotfagasta	Coal	5,472	4,403	3,025
Seminole [7]	28	23.25	29	8.25	29	16.35	2	7.23	British	Anglo-American Oil Co	425.2	57.0	17.6	Manchester	San Pedro	Ballast		7,024	5,010
Newport	28	1.15	29	9.18	29	17.14	29	20.30	American	Pacific Mail Steamship Co	326.0	38.0	14.6	Cristobal	Corinto	Ballast		3,173	2,163
Gargoyle [1]	29	8.25	29	10 23	29	18.33	29	19.35	American	Vacuum Oil Co	425.0	57.2	18.6	Philadelphia	San Francisco	Ballast		7,510	4,989
Iowan	29	10.25	29	11.15	29	18.00	1	0.49	American	American-Hawaiian Line	407.7	53.7	22.0	Philadelphia	Seattle	General mdse	5,092	7,091	5,002
Hull [5]	29	10.40	29	11.30	29	18.46	2	14.45	American	U. S. Navy	310.0	30.11½	9.0	Culebra Island	Mare Island	Ballast			
Shreveport [1]	29	13.35	29	13.45	29	20.54	1	6.09	American	Walker & Daly (S. B.)	435.0	56.0	20.6	New York	San Pedro	Ballast		7,411	5,103
St. Mihiel [8]	29	10.52	1	6.00					American	U. S. Army	448.0	58.0	23 10	New York	Paraiso [9]				
Colombia	29	15.45	1	6.18	1	14.44	2	1.20	American	Pacific Mail Steamship Co	380.0	49.0	22.0	New York	San Francisco	General	2,932	6,015	4,281
Corry [5]	29	21.34	1	6.10	1	12.56	2	14.45	American	U. S. Navy	310.0	30 11½	11.6	Culebra Island	San Francisco	Ballast			
Samuel Q. Brown [1]	1	4.55	1	7.25	1	15.25	1	16.31	American	Tidewater Oil Co	424.4	58.2	20.6	New York	San Pedro	Ballast		7,333	5,246
La Paz [6]	1	5.25	1	7.45	1	16.29	2	2.40	British	Pacfic Steam Navigation Co	406.0	54.0	13.5	Hull	Puntarenas	Ballast		7,216	4,912
Santa Cecilia	1	6.07	1	8.20	1	16.36	1	23.35	American	Planet Line	404.6	53.0	28.0	Baltimore	Seattle	General	8,381	6,745	4,562
Shirk [5]	1	6.10	1	9.05	1	17.38			American	U. S. Navy	310.0	30.11½	10.0	Culebra Island	Mare Island	Ballast			
Reno [5]	1	6.10	1	9.05	1	17.38			American	U. S. Navy	310.0	30.11½	10.0	Culebra Island	Mare Island	Ballast			
Mullany [5]	29	21.46	1	9.15	1	17.47			American	U. S. Navy	310.0	30.11½	11.6	Culebra Island	San Francisco	Ballast			
Doyen [5]	29	21.46	1	9.15	1	17.47			American	U. S. Navy	310.0	30.11½	11.6	Culebra Island	San Francisco	Ballast			
Firmore [1]	1	10.20	1	10.40	1	18.21	1	19.40	American	Ore Steamship Co	449.1	57.2	21.0	Baltimore	Cruz Grande	Ballast			
Salvador	20	19.56	1	11.15	1	18.44	1	21.25	British	Pacific Steam Navigation Co	215.0	33.5	15.6	Cristobal	Champerico	General	1,170	1.270	735
Saint Jean	1	4.25	1	12.43	1	19.59	1	20.55	French	French Line	415.0	50.13	21.3	Bordeaux	Talcahuano	General	2,604	5,849	4,081

[1] Tanker. [5] Destroyer. [6] Motor ship. [7] Motor ship—tanker. [8] Transport. [9] To discharge launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Marore	24	1.00	24	6.04	24	19.15	24	19.15	American	Ore Steamship Corporation	550.3	72.2	32.10	Cruz Grande	Baltimore	Iron ore	19,600	15,551	4,297
Scottish Musician [1]	23	21.00	24	7.12	24	17.45	24	18.27	British	Pure Oil Co	425.0	52.0	27.0	San Francisco	Hamburg	Distillate	9,000	7,115	5,010
Santa Rosa	24	4.00	24	8 07	24	19.40	24	19.40	American	Pacific Mail Steamship Co	404 6	53.9	24.6	Los Angeles	New York	([14])	6,713	6,754	4,780
Lake Flattery	24	4.15	24	8 46	24	21.08	26	19.05	American	Panama Railroad Steamship Line	251.0	43.0	20.0	Guayaquil	New York	General	2,504	2,873	1,776
Sugillenco	24	9.45	24	10.57	24	21.05	25	3 20	American	Transmarine Corporation	324.0	46.2	20.6	Taeoma	Port Newark	Lumber	4,037	3,984	2,612
Willfaro	24	13.30	24	14.15	24	21.55	24	21.55	American	Williams Steamship Co	386.8	52.2	23.6	Seattle	New York	([15])	4,120	5,684	4,113
Venezuela	24	10.00	25	6.22	25	14.00	26	21.48	American	Pacific Mail Steamship Co	380.0	48.7	25.0	San Francisco	New York	General	1,000	6,033	4,353
Sunugenteo	22	22.30	25	6.45	25	14.40	25	14.40	American	Transmarine Corporation	324.0	46.2	22.7	San Pedro	Newark	Lumber, general	2,830	3,984	2,612
Indien [11]	24	18.36	25	7.21	25	15.40	25	15.40	Danish	Dupont	379.4	51.7	28.6	Iquique	New Orleans	Nitrate of soda	8,800	6,173	4,418
Edward Luckenbach	24	19.10	25	8.09	25	16.30	25	16.30	American	Luckenbach Line	436.6	57.2	31.0	Portland	Philadelphia	General	8,200	8,543	6,427
Rhine Maru	24	14.20	25	8.28	25	17.30	25	17.30	Japanese	Kawasaki Dockyard	405.0	53.0	27.10	Vancouver	Fayal [13]	Wheat	8,090	7,044	5,136
Franc's E. Powell [1]	24	21.10	25	8 57	25	18.15	25	18 15	American	Atlantic Refining Co	431.0	59.2	26.6	San Pedro	Philadelphia	Gasoline	11,128	7,860	5,101
Capella [12]	24	9.30	25	9.27	25	19.00	26	10.40	American	U. S. Navy	390.0	54.0	18.0	San Diego	Norfolk	Naval stores	1		
Ingram	24	21.30	25	10 13	25	20.15	25	20 55	German	Roland Line	369.5	50.8	23.0	Corral	Hamburg	([16])	5,755	4,899	3,704
Antietam [1]	24	23.40	25	11.22	25	21.50	25	21.50	American	Chas. Kurz & Co.	435 0	56.0	28.6	Los Angeles	Philadelphia	Crude oil	10,157	7,426	5,094
Denderah	24	20.45	25	13 15	25	22.30	26	12.00	German	Kosmos Line	360.5	51 0	21 10	Salina Cruz	Hamburg	General	4,500	4,924	3,524

[1] Tanker. [11] Motor ship. [12] Navy transport. [13] For orders. [14] Shingles, barley, copper, etc. [15] Lumber and canned goods. [16] Nitrates, hides, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Thomas H. Wheeler [1]	25	11.00	25	14.12	25	23.58	25	23.58	American	Standard Oil Co. of N. J.	425.0	57.2	27.5	San Pedro	New York	Crude oil	10,281	7,481	4,769
Sujerseyco	25	16.05	26	6.23	26	13.45	26	13.45	American	Transmarine Corporation	324.0	46.2	22.0	Raymond	Newark	([19])	4,000	3,984	2,612
Missourian	25	22.38	26	7.30	26	18.10	26	18.10	American	American-Hawaiian Line	445.1	59.8	22.0	Seattle	Boston	General	6,600	8,567	6,020
Agwihavre [1]	26	2.30	26	8.13	26	19.05	26	19.05	American	Ward Line	480.5	66.0	27.6	Los Angeles	Baltimore	Crude oil	12,860	9,394	6,305
Leon XIII	25	7.45	26	9.57	26	20.10	28	0.35	Spanish	Cia Trasatlantica	412.7	43.1	21.0	Valparaiso	Barcelona	General	150	5,521	3,729
West Mahwah	25	15.20	26	10.22	26	21.20	27	11.37	American	Barber Lines (S. B.)	410.3	54.2	24.0	Manila	Baltimore	Sugar	6,250	6,588	4,833
Chuky [1]	24	22.30	26	10.43	26	21.40	26	21.40	British	Chile Steamship Co.	440.0	56.0	16.0	Tocopilla	Tampico	Ballast		7,691	4,723
Arno Mendi	26	13.00	26	13.55	26	22.45	26	23.58	Spanish	Soto & Aznar	400.0	53.6	24.6	Vancouver	Marseilles	Wheat	7,282	6,044	4,235
Lebore	26	14.35	26	17.53	27	13.50	27	13.50	American	Ore Steamship Corporation	549.6	72.2	33.6	Cruz Grande	Baltimore	Iron ore	19,600	14,325	4,635
Haarlem	26	15.00	27	6.25	27	15.40	28	1.45	Dutch	Royal Netherlands W. I. Mail	374.0	49.1	20.2	San Antonio	Havre	([20])	5,064	4,759	3,660
Chester Sun [1]	26	15.00	27	7.00	27	18.25	27	18.25	American	Sun Oil Co.	429.3	59.2	27.6	San Pedro	Chester	Crude oil	10,689	7,684	5,249
Kroonland	27	0.35	27	7.56	27	17.05	27	22.20	American	Panama-Pacific Line	560.0	60.2	28.3	San Francisco	New York	([21])	5,865	13,514	9,127
Bethelridge [1]	26	19.00	27	8.09	27	18.45	27	18.45	American	Walker & Daly (S. B.)	431.0	59.2	25.0	San Pedro	New York	Crude oil	9,811	7,819	5,076
Corvus	26	22.00	27	9.08	27	19.52	27	19.52	American	Planet Line	410.0	54.2	23.6	Seattle	Providence	Lumber, general.	6,867	6,604	4,655
York City	27	1.00	27	9.22	27	20.40	28	2.10	British	St. Just Steamship Co.	411.8	55.0	27.0	San Francisco	Birmingham	Barley	8,985	7,038	5,166
Amsterdam	27	1.00	27	11.12	27	21.20	28	1.00	Dutch	Royal Netherlands W. I. Mail	494.0	65.5	31.4	Taltal	Rotterdam	Nitrate, sugar	14,000	11,647	8,217
Pear Branch	27	2.00	27	11.14	27	21.35	27	22.55	British	F. and W. Ritson	398.6	53.9	23.6	Valparaiso	London	General	6,173	5,760	3,866
Arizonan	27	3.15	27	12.25	27	22.46	27	22.46	American	American-Hawaiian Line	470.1	57.2	23.10	Seattle	Boston	General	6,000	9,140	6,684
Betterton	26	21.45	27	13.53	27	23.10	27	23.10	American	Walker & Daly (S. B.)	431.0	59.2	24.0	San Pedro	Philadelphia	Crude oil	9,632	7,822	5,180
Newport	27	2.10	27	14.19	28	1 15	29	9.18	American	Pacific Mail Steamship Co.	326.0	38.2	18.3	San Francisco	Cristobal	Coffee, general	1,417	3,173	2,163
Nobel [17]	27	13.45	28	6.36	28	15.55	28	15.55	Norwegian	Partagas Steamship Co.	140.4	28.6	11.0	Valparaiso	English Chan.	Barley	394	396	307
Pilar de Larrinanga	27	17.00	28	7.18	28	18.40	28	20.45	British	Larrianga & Co., Ltd.	445.0	58.0	25.1	Vancouver	Antwerp	Wheat	9,428	7,643	5,562
Andrea F. Luckenbach	27	21.15	28	7.45	28	16.55	28	16.55	American	Luckenbach Line	496.0	68.0	20.0	Portland	Orleans	Shingles, general.	3,200	11,487	8,762
Steel Seafarer	27	21.00	28	8.11	28	18.25	28	18.25	American	Isthmian Steamship Lines	424.2	56.2	25.10	Tacoma	Boston	General, lumber.	6,678	7,611	5,454
M. F. Elliott [1]	27	21.27	28	8.55	28	19.20	28	19.20	American	Standard Oil Co. of N. J.	425.0	57.2	27.0	San Pedro	New York	Crude oil	10,000	7,481	4,946
Republic	28	0.10	28	10.04	28	20.40	28	22.40	American	Chile Steamship Co.	345.1	49.1	23.0	Antofagasta	Norfolk, Va.	General	6,103	4,393	3,006
Henry S. Grove	26	6.04	28	11.30	28	20.35	28	20.35	American	Argonaut Steamship Lines	404.6	53.9	24.4	Seattle	Baltimore	Lumber, general.	5,514	6,755	4,688
D. G. Schofield [1]	28	10.45	28	12.19	28	21.35	28	21.35	American	Standard Oil Co. of California	439.5	58.0	30.1	Los Angeles	New York	Crude oil	11,000	8,698	6,013
Margaret Dollar	28	14.05	29	6.33	29	15.20	29	15.20	American	Robert Dollar Line	429.0	55.2	27.0	Tacoma	New York	Lumber, general.	7,500	7,579	5,527
K.R.Kingsbury [1]	28	18.45	29	7.21	29	17.10	29	17.10	American	Standard Oil Co. of California	440.0	58.2	31.0	Los Angeles	New York	Crude oil	11,000	9,033	5,938
Curlew [18]	28	20.05	29	7.40	29	17.15	.....	.....	American	U. S. Navy	180.0	35.6	....	Balboa	Cristobal	.....	.....	.....	.....
A. C. Bedford [1]	28	14.35	29	9.15	29	19.20	29	19.20	American	Standard Oil Co. of N. J.	500.0	68.0	28.9	San Pedro	New York	Crude oil	15,000	10,896	7,688
Aconcagua	29	8.30	29	10.20	29	18.58	1	1.30	Chilean	Chilean Line	422.8	56.2	27.0	Valparaiso	New York	General	5,095	7,758	4,705
Rotorua	29	4.00	1	6.31	1	14.35	1	14.45	British	New Zealand Shipping Co.	525.0	61.4	24.6	Lyttleton	London	General, frozen.	5,775	12,846	9,439
Santa Clara	29	14.37	1	6.51	1	16.52	1	16.52	American	Pacific Mail Steamship Co.	404.6	53.9	23.6	San Francisco	Philadelphia	General	4,845	6,760	4,450

[1] Tanker. [17] Motor ship. [18] Tug. [19] Lumber and talcum powder. [20] Nitrate, borax, and general. [21] Canned fruit and general.

Sidney M. Hauptman...	29	15.15	1	7.28	1	18.18	1	18.20	American...	Chas. R. McCormick Co.....	401.4	53.2	28.0	Tacoma.....	New York....	Lumber, copper.	7,250	7,082	5,167
Herakles.....	29	18.15	1	7.50	1	20.15	1	21.03	Norwegian..	E. I. DuPont de Nemours Co....	389.8	54.0	24.9	Iquique.....	Savannah.....	Nitrate.....	8,180	5,680	4,220
Jeanne d'Arc [23]	1	.....	1	8.41	1	17.10	...	.....	French....	French Government.....	460.0	54.0	25.0	San Diego....	Martinique....	.....	.....	.....	.....
San Patricio [1]..	29	19.00	1	9.51	1	19.55	1	19.55	British..	Eagle Oil Transport Co.....	530.0	66.7	31.6	San Diego....	Tacoma.....	Crude oil.....	15,459	11,886	8,664
Byron D. Benson [1].....	1	4.07	1	9.59	1	21.05	1	21.05	American...	Tidewater Oil Co.....	465.4	60.2	26.1	San Francisco.	New York....	Crude oil.....	11,127	8,546	6,095
Ramon de Larrinaga.....	1	4.00	1	10.36	1	22.00	2	6.20	British.....	Larrianga & Co.....	460.0	58.0	34.4	Vancouver....	Genoa, Italy..	Wheat.....	8,357	7,712	5,600
Laura C. Hall..	29	15.30	1	10.21	1	19.52	3	6.15	British.....	Pacific Metals Transportation Co	81.0	25.6	9.0	Buenaventura.	Cristobal....	Platinum.....	([25])	132	72
J. C. Donnell [1]..	1	8.12	1	11.15	1	23.00	1	23.00	American...	Atlantic Refining Co.....	500.0	68.2	29.0	San Pedro....	Philadelphia..	Crude oil.....	15,200	10,435	7,304
St. Mihiel [24]...	1	12.26	1	12.26	1	18.18	...	.....	American...	U. S. Army.....	448.0	58.0	23.10	Paraiso.....	Cristobal.....	.....	.....	.....	.....
Watertown [1]...	29	22.23	1	13.30	1	23.05	2	0.30	American..	McAllister Brothers.....	416.9	56.2	27.0	San Pedro....	Philadelphia..	Crude oil.....	9,500	6,706	4,766

[1] Tanker. [23] Cruiser. [24] Army transport. [25] Value $154,200.12. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 25.	Parismina.....	United Fruit Co.....	New Orleans via wayports.	Febrnary 24	Apurimac.....	Peruvian Line.....	Liverpool.
February 27.	Atenas.....	United Fruit Co.....	New Orleans via wayports.	February 26	Parismina.....	United Fruit Co.....	New Orleans via wayports.
February 27.	Crynssen.....	Royal Netherlands W. I. Mail....	Amsterdam via wayports.	February 27	Crynssen.....	Royal Netherlands W. I. Mail Co.	Port Limon.
February 27.	Santa Marta.....	United Fruit Co.....	New York via Kingston.	February 28	Santa Marta.....	United Fruit Co.....	Colombian ports.
February 28.	Carrillo.....	United Fruit Co.....	Colombian ports.	February 28	Carrillo.....	United Fruit Co.....	New York via Kingston.
February 28.	Macoris.....	French Line.....	Havre via wayports.	February 28	Atenas.....	United Fruit Co.....	New Orleans via wayports.
February 19.	Adalia.....	Hamburg-American Line	Port Limon.	February 29	Gen. W. C. Gorgas..	Panama Railroad Steamship Line..	New York via Haiti.
February 29.	Toloa.....	United Fruit Co.....	New York via wayports.	March 1....	Adalia.....	Hamburg-American Line.....	Cartagena.
February 29.	Crynssen.....	Royal Netherlands W. I. Mail....	Port Limon.	March 1....	Crynssen.....	Royal Netherlands W. I. Mail....	Amsterdam via wayports.
March 1.....	San Bruno.....	United Fruit Co.....	Boston via Port Limon.	March 1....	Macoris.....	French Line.....	Havre via wayports.
March 1.....	Dictator.....	Ore Fruit Steamship Co.....	New Orleans via wayports.	March 1....	San Bruno.....	United Fruit Co.....	Boston.
March 1.....	La Isla [26].....	L. J. Vacarro & Bros.....	La Ceiba.	March 1....	Toloa.....	United Fruit Co.....	New York via wayports.
.....	.....	.....	.....	March 1....	Dictator.....	Ore Fruit Steamship Co.....	Bluefields, Nicaragua.

[26] Motor schooner.

PORT OF BALBOA.

February 24.	El Lobo [1].....	C. T. Bowring & Co.....	San Pedro.	February 26	El Lobo.....	C. T. Bowring & Co.....	San Pedro.
February 26.	Anomia [1].....	Anglo-Saxon Petroleum Co.....	San Pedro.	February 28	Anomia.....	Anglo-Saxon Petroleum Co.....	San Pedro.
February 26.	Remus.....	Latin-American Line.....	San Francisco.	March 1,...	Remus.....	Latin-American Line.....	Callao.

[1] Tanker.

* Other than ships passing through the Canal.

Facilities for Repair of Vessels at the Panama Canal.

GENERAL.

The repair shops and dry docks of The Panama Canal are available for any class of machinery or hull repairs desired by vessels visiting Canal waters. While the law provides that the repair facilities shall be maintained for repairs "to vessels of the Government of the United States, and incidentally for supplying such at reasonable prices to passing vessels," there is always sufficient surplus capacity maintained to take care of work for shipping. So far as the visiting vessels is concerned, she may count upon the repair shops and dry docks precisely as though they were commercial ship repair plants, and her arrangements for having work performed will, in general, be similar to making arrangements at such private plants. Emergency work is given preference.

THE BALBOA PLANT.

Dry dock and repair wharves—The dry dock is 1,000 feet long by 110 feet wide, with a depth of 35 feet over the blocks at mean tide. High tide varies from 3 to 11 feet above mean tide. The dock is served by a 50-ton traveling crane, with an outside reach of 5 feet beyond the center line of the dock. This crane is also capable of traveling along the face of some of the repair wharves, thus facilitating the prosecution of repairs to vessels.

For ships which do not require dry docking, there are adjacent to the shops, approximately 3,500 feet of repair wharves. At regular intervals along the coping of the dry dock and the repair wharves are outlets for air, water, and alternating electric current. A limited quantity of direct current can be supplied by two portable motor generating sets. Either compressed air or electricity can be supplied for operating auxiliaries on shops which have steam off the vessel. Where refrigerating machinery is shut down, cold storage can be removed from the ships boxes and stored in the Canal cold storage warehouse nearby.

Repair shops—The repair shops are centrally located with respect to the dry dock and repair wharves. Ample track and crane service provide for handling work between shops and ships.

The main metal working shops (machine, smithery, and boiler shop) are provided with 60-ton overhead traveling cranes, while the foundry has a 25-ton overhead crane. As all the shops are equipped with as complete a line of power tools as are generally found in an up-to-date repair shop, only the larger tools will be given special mention so as to give an idea of the maximum capacity of each department.

The machine shop is provided with a vertical boring mill capable of working 18 feet in diameter, with an open side extension planer, 16 feet by 32 feet, and with a lathe, 120-inch swing by 65 feet between centers. No ship machinery is too large for the capacity of this shop.

The smithery is provided with a 500-ton forging press with the necessary furnaces to handle any work that the press is capable of. Billets, 24 inches square by 19 feet long are kept in stock and can be worked under this press.

The boiler and ship-fitting shops have a set of rolls capable of bending plates $\frac{3}{4}$-inch by 30 feet, 1 inch by 24 feet, or 2 inches by 6 feet. Any size of ship or boiler plate can be worked by the other machinery.

The pipe shop is outfitted for plumbing work and for pipe, copper, and sheet metal work of the highest classes.

The foundry is equipped with a 2-ton tropenas converter, and one 2-ton and one 1-ton cupola, and the usual brass furnaces. It can turn out castings as follows: Bronze, brass or composition, $\frac{1}{4}$-pound to 1,000 pounds; iron, $\frac{1}{4}$-pound to 26,000 pounds; steel, $\frac{1}{4}$-pound to 10,000 pounds.

The planing mill and joiner shop is outfitted with the usual wood-working machines, including a saw mill capable of handling timbers likely to be used in connection with ship work.

The oxy-acetylene plant has portable electric-welding and oxy-acetylene cutting outfits capable of handling emergency repairs. The plant develops approximately 400 cubic feet of acetylene per hour, 5,000 cubic feet of oxygen per day, and 10,000 cubic feet of hydrogen per day. All classes of boiler welding is done. Large thermit welds can be performed. Main engine cylinders have been welded in place, both high pressure and low pressure, the welds being as extensive and as successful as the welds made in the United States on engine cylinders during the World War.

An instrument repair shop is maintained in which repairs are made to navigating instruments, clocks, gauges, typewriters, and computing machines, and other work of a minute character. The paint used on vessels painted in the dry dock is the variety of bottom paint used by the U. S. Navy, which paint is compounded fresh as required in power-paint mills and mixers. Other brands of bottom paint are not stocked, but brands of paint supplied by a vessel, either from her own stores aboard, or by local purchase of her own, will be applied.

The storehouses (under the control of the Supply Department) carry on hand a large stock of steel shapes, pipe, ship fittings, and supplies of every description. Steel plate is carried in stock in all thicknesses up to and including 2 inches. Plates smaller than $\frac{5}{8}$-inch vary by sixteenths, and plates larger than $\frac{5}{8}$-inch vary by eighths. The largest plates in stock are 72 inches by 10 feet by 2 inches thick. A large amount of steel billets is kept on hand in all sizes up to and including 24 inches by 24 inches by 19 feet. Structural shapes are carried as follows: Eye-beams, all sizes up to 27 inches; channels, all sizes up to 15 inches; ship channels, all sizes up to 12 inches; and angles, all sizes up to 8 inches by 8 inches by $\frac{3}{4}$-inch.

In addition to the crane service heretofore mentioned, the services of two floating cranes with a capacity of 250 tons each are available at any time or place in the Canal or terminal harbors.

CRISTOBAL PLANT.

This plant has less capacity than the Balboa plant and is intended for repairs of less importance. The activities of these shops are confined to three buildings, of somewhat temporary construction; one of which houses the machine shop, smithery, pipe shop, and power plant; another the boiler and shipfitter's shop; and the third, the wood-working shop. The tools are of smaller capacity than those in use at the Balboa plant, few steps having been taken to modernize the plant pending more definite information as to exactly what the demands upon it will be. It is, however, capable of undertaking routine repairs to vessels; and in emergencies, such parts as require larger tools than are available here can be shipped to Balboa to be machined.

There is available at this plant a small dry dock, originally constructed by the French and later extended by the Americans. This dock is

now 300 feet in length, 50 feet in width, and has a depth over the blocks of 13 feet 6 inches at ordinary mean high tide. Adjacent to the shops and dry dock are approximately 2,000 feet of repair wharves.

Working force, cost of repairs, docking charges—Practically all skilled mechanics on the Isthmus come from the United States, the unskilled labor being performed almost exclusively by West Indians. About 400 skilled men and 800 unskilled employees are employed.

The actual cost of repairs, as billed, compares favorably with that to be found in the United States. The charges are at actual shop costs, plus a moderate percentage for general administrative expense and profit, and the total cost is believed to be less than in Asiatic or South American establishments, while in many cases it compares favorably with costs in the United States. In some special cases, contracts are made at a fixed flat price.

Charges for docking are in accordance with the following rates:

Rates.	Balboa length 1,000 feet.	Cristobal length 300 feet.
Men-of-war. Per ton, actual displacement tonnage:		
For docking and undocking	$0.15	$0.15
For each lay day	.12	.10
Army and Navy transports, colliers, hospital ships, and supply ships, per gross ton, Panama Canal measurement:		
For docking and undocking	.15	.15
For each lay day	.12	.10
Merchant steamers. Per gross ton, Panama Canal measurement:		
For docking and undocking	.15	.15
For each lay day	.12	.10
Merchant sailing vessels. Per net ton, Panama Canal measurement:		
For docking and undocking	.15	.15
For each lay day	.12	.10

Minimum charges:

The above tonnage rates will apply in all cases except where the actual cost is greater, in which event the actual cost will be charged.

Note—In computing the actual cost of docking, a charge of $150 per day for the Balboa dock, and $60 per day for the Cristobal dock will be included. These charges cover pumping costs, and the use of the docks and equipment on docking and lay days, and are divided equally among vessels in dock at the same time.

Further data as to charges are published in the current issue of The Panama Canal Tariff, *Schedule of Rates for Supplies and Services Furnished to Shipping and Allied Interests at The Panama Canal.*

Scope of work performed—As may be seen from the reports published weekly in The Panama Canal Record, all kinds of repairs, including minor manufacturing, are made to vessels at the Canal. These range from running repairs to the virtual rebuilding of vessels, embracing every feature of the maintenance of ships. Anything from a steam gauge to an ocean liner can be performed in part or in entirety.

Cable Rates—Peru.

Effective March 1st, the rate for cable messages from the Isthmus to Callao, Paita, Lima, and Trujillo, is 35 cents per word; to other places in Peru, 40 cents per word.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., March 12, 1924. No. 31.

Tanker Traffic Through Panama Canal, February, 1924.

This traffic shows a decrease during recent months. The high point in number of tankships through the Canal was reached in August, 1923, with 173 transits, and the high point in number of tons of cargo carried in September, 1923, with 1,023,320 tons.

During February, 1924, there were 120 tankships through the Canal carrying 731,331 tons of cargo. This is 22 less ships than in January, 1924; 44 less than in December, 1923; 22,925 tons less cargo than in January, 1924; and 243,733 tons less cargo than in December, 1923.

These 120 tankships through the Canal in February, 1924, made about 28 per cent of the total transits during the month, about 35 per cent of the Panama Canal net tonnage, paid about 33 per cent of the tolls, and carried about 33 per cent of the total cargo passing through the Canal during the month.

The following tabulations shows the number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during February, 1924, segregated by nationality of vessels and direction of transit:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	7	39,905	$30,798.00	9,133
Danzig	3	23,944	19,422.23	.....
Dutch	1	4,395	3,164.40	.....
Norwegian	1	5,520	3,974.40	.....
United States	44	269,416	198,755.70	18,128
Totals, February, 1924	56	343,180	256,114.73	27,261
Totals, January, 1924	66	405,051	295,522.96	21,095
Totals, December, 1923	83	486,125	364,080.02	60,107
Pacific to Atlantic.				
British	4	22,460	19,570.02	15,108
Norwegian	1	5,051	3,636.72	.....
United States	59	362,824	373,526.90	698,095
Totals, February, 1924	64	390,335	396,733.64	713,203
Totals, January, 1924	76	443,239	456,899.88	833,768
Totals, December, 1923	81	488,102	501,747.98	914,957

Of the total tanker traffic shown above, the following is a summary of the vessels showing Los Angeles as the port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
February, 1924	49	302,035	$220,615.57	8,128
January, 1924	63	387,815	279,992.01	.....
December, 1923	71	423,948	305,939.73	.....
From Los Angeles.				
February, 1924	59	362,904	371,423.51	678,854
January, 1924	70	415,194	430,324.95	801,083
December, 1923	75	457,676	479,966.05	870,855

Transit of the "Oropesa" with Tourists.

The Pacific Steam Navigation steamer *Oropesa* transited the Canal March 8 with 257 passengers, of whom 12 disembarked at Cristobal, and the remaining were through passengers for Habana, Azore Islands, Liverpool, etc. About 80 of the passengers were tourists, making the voyage around South America. The vessel also carried 11,000 tons of general cargo.

The *Oropesa* is being operated in the Liverpool-South America service via the Strait of Magellan and the Panama Canal, calling on her outward voyage at ports in France, Spain, and Portugal, thence crossing the Atlantic to Brazil, Uruguay, and Argentine ports on the east coast of South America, proceeding through the Strait, and calling at Chilean, Peruvian, and Ecuadorian ports on the west coast of South America, thence through the Panama Canal to Habana, Azore Islands, and return to Liverpool. The entire voyage is about 18,000 miles.

The *Oropesa* has a registered gross tonnage of 14,073 and registered net tonnage of 8,607; is 530 feet long with a beam of 66 feet. She is fitted with 145 first-class passenger berths, 132 second-class passenger berths, and also has accommodations for 60 third-class passengers. She was constructed after the European war especially for the South American trade and made her early voyages in this service, but afterward was transferred to the service of the Royal Mail Steam Packet Company, between New York and Hamburg for 18 months, being returned to the South American service late in 1922.

Flag of Danzig Free State Appears in Canal Traffic.

Three vessels flying the flag of the Danzig Free State passed through the Canal southbound during February, 1924. These three vessels were the *Vistula*, *Gedania*, and the *Baltic*, all tankships, and owned by the Baltisch Amerikanische Petroleum Import Co. of Danzig, and all under charter to the Standard Oil Co. of New Jersey.

The 3 vessels transited the Canal in ballast, the *Baltic* and the *Vistula* en route to Los Angeles, and the *Gedania* to Talara, Peru.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended March 10, 1924:

U. S. Army mine planter *Graham*, dock, clean and paint bottom; repair main engine, sea injection valves, feed water line, ventilator; renew defective tubes in donkey boiler; install manhole entry ways in each furnace of main boilers; repair rudder, scupper valves, water outlets and intakes and repair as necessary; barge *Darien*, weld steam end of sanitary pump and of auxiliary feed pump; manufacture new cover for water end of auxiliary feed pump; reeve spare hawser on to towing engine; renew suction pipes from feed pump to hot well and on port and starboard fresh water tanks; test out steam heating system, other pipe systems and machinery; remove lagging from main boiler; calk seams; renew defective staybolts and replace lagging; renew galley smoke stack; remove booms and gaffs; wire brush and paint one coat sides of ship above water line; steamship *Newport*, make new piston rod and rings for dynamo engine; repair fire pump, sanitary pump and main feed pipe; manufacture one new boiler feed valve stem and face off one boiler check valve; steamships *Crynnsen*, *Macoris*, *Breda*, and *La Isla*, and U. S. S. submarine *S–32*, minor repairs; steamships *Cauca*, dock, clean, and paint bottom; repair ballast pump, fresh water pump, winch guards and ships' side ports; open up sea valves for survey; anneal and test steering chains; range anchor chains in dock and repair shackles, etc.; reface two blow-down valves for main boilers; retin galley utensils, etc.; *Ulysses*, manufacture two L. P. Piston rings, 6 assorted calking tools; 50 L. P. springs, and 12 steel wedges; repair feed pump and topside tank bulkheads; sweep tubes on main

boilers; continue scaling and cement washing topside tanks, etc.; *City of Para*, manufacture cap for oil strainer; repair feed pump valve gear, valve stems for fresh water pump, and condenser; *Panama*, repair filling line No. 2 tank, fountain block, two boom bands for new boom at No. 3 hatch and bent stanchions in No. 2 hold, etc.; *Jamaica*, repair main feed pump, ballast pump valve gear and bushes, wash deck piping and boiler gauge column cocks; redrive rivets in shell as directed; renew stanchion for portable hatchway, etc.

Minor repairs—Steamships *Hector*, *Mantaro*, *Loriga*, *Selma City*, *Acajutla*, yacht *San Blas*, schooner *Benefit*, launch *Coco Solo*, and tug *Tavernilla*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 8, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Heredia	United Fruit Co.	March 2.	March 2.	149	171
Breda	Royal Netherlands W. I. Mail Co.		March 2.		4
Oriana	Pacific Steam Navigation Co.	March 2.	March 2.	83	66
Jamaica	Pacific Steam Navigation Co.	March 2.		723	
Mantaro	Peruvian Line	March 3.	March 7.	1,231	(2)
Atto	Roland Line	March 3.	March 3.	180	(2)
Santa Luisa	Grace Line	March 3.	March 3.	30	29
Panama	Panama Railroad Steamship Line.	March 4.		1,913	
Turrialba	United Fruit Co.	March 4.	March 6.	820	½
Hector	Royal Netherlands W. I. Mail.	March 4.	March 7.	150	2,209
Indiana	French Line	March 4.	March 5.	14	(2)
Lochkatrine	Pacific Steam Navigation Co.	March 4.	March 4.	(1)	7½
San Blas	United Fruit Co.	March 4.	March 6.	18	355
Heredia	United Fruit Co	March 4.	March 5.	51	¾
Santa Tecla	Grace Line	March 5.	March 5.	260	49
Metapan	United Fruit Co.	March 5.	March 6.	370	406
Borgstadt	A. S. Borgstadt	March 5.	March 7.	5,684	(2)
Songelv	Grace Line	March 6.	March 6.	121	45
Acajutla	Pacific Steam Navigation Co.	March 7.		1,097	
Albaro	La Veloce Line	March 7.		32	
Calamares	United Fruit Co.	March 7.	March 8.	184	222
Charles Pratt	Standard Oil Co.	March 8.		13,700	
City of Para	Pacific Mail Steamship Co.	March 8.		2,619	
Dinteldijk	Holland-American Line	March 8.		13	
Loreta	Pacific Steam Navigation Co.	March 8.		13	
Motagua	Elders & Fyffes, Ltd.	March 8.	March 8.	220	¼
Oropesa	Pacific Steam Navigation Co.	March 8.		34	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending March 8, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Venezuela	Pacific Mail Steamship Co.	February 24	February 24.	75	
Denderah	Kosmos Line	February 24.	February 25.	114	
El Lobo	Lobitas Oil Fields	February 25.	February 26.	5,824	
West Mahwah	U. S. Shipping Board	February 25.	February 25.	671	
Leon XIII	Cia Trasatlantica	February 25.	February 26.	135	
Almagro	Pacific Steam Navigation Co.	February 26.	February 26.		2
Anomia	Anglo-Saxon Petroleum Co.	February 26.	February 27.	6,887	
Remus	A. O. Lindvig	March 26.	March 1.	1,932	
Atrato	Colombia Transport Co.	February 28.	March 1.	40	163
Borga	Fred Olsen & Co	February 29.	February 29.	488	
Laura C. Hall	Pacific Metals Corporation	February 29.	March 1.	11	
Salvador	Pacific Steam Navigation Co.	March 1.	March 1.		4
Newport	Pacific Mail Steamship Co.	March 1.	March 1.	152	
Breda	Royal Netherlands W. I. Mail Co.	March 2.	March 2.	145	
Argo	D. T. Baker	March 3.	March 3.	11	
Jamaica	Pacific Steam Navigation Co.	March 3.	March 3.	1	
Albaro	La Veloce Line	March 6.	March 7.	219	
Laura C. Hall	Pacific Metals Corporation	March 4.	March 4.		60
Lima	Johnson Line	March 7.	March 7.	104	
Lirio de Agua	Robert Calhoun	March 7.	March 7.		170
Santa Tecla	Grace Line	March 5.	March 6.	113	
City of Para	Pacific Mail Steamship Co.	March 8.	March 8.	32	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 8, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Breda	1	9.50	2	6.14	2	13.38	3	0.41	Dutch	Royal Netherlands W. I. Mail	402.6	58.3	24.6	Amsterdam	Valparaiso	General	5,056	7,384	5,226
Toco [1]	1	14.35	2	6.25	2	14.30	2	15.43	British	Chile Steamship Co	440.8	56.0	26.0	Tampico	Tocopilla	Crude oil	9,800	7,693	4,831
Hampton Roads [1]	2	0.50	2	7.23	2	16.12	2	17.15	American	McAllister Bros. (S. B.)	431.0	59.2	18.0	Baltimore	San Pedro	Ballast		8,093	5,541
La Brea [1]	2	6.00	2	7.25	2	15.21	2	18.20	American	Union Oil Co	435.0	56.2	21.0	Philadelphia	San Pedro	Ballast		7,150	4,765
London Merchant	2	6.28	2	8.35	2	16.45	2	23.20	British	Furness, Withy & Co	450.4	58.1	16.3	London	Vancouver	General	865	8,416	5,720
Eastern Planet	2	7.15	2	8.50	2	17.14	2	21.55	American	U. S. & Australasia Lines (S.B.)	384.3	51.2	24.0	New York	Adelaide	General, case oil	7,318	6,235	4,480
Hazelside	2	6.35	2	10.08	2	18.09	2	19.20	British	Charlton Shipping Co	331.3	46.0	20.6	Cardiff	San Francisco	Coal	3,325	3,446	2,174
Oriana	2	8.42	2	13.05	2	19.30	2	20.57	British	Pacific Steam Navigation Co	465.7	56.0	24.0	Liverpool	Valparaiso	General	2,638	8,620	5,345
Walter Jennings [1]	2	15.45	3	5.05	3	12.59	3	13.59	American	Standard Oil Co	499.2	68.0	18.0	New York	San Pedro	Ballast		11,037	7,995
Peter Kerr	2	18.00	3	6.05	3	13.39	3	17.10	American	Columbia Pacific Shipping Co	415.0	55.6	22.0	New York	Seattle	(4)	6,000	7,704	5,707
Laura C. Hall [2]	1	19.52	3	6.15	3	14.35	4	9.32	British	Pacific Metals Corporation	81.0	26.0	9.0	Cristobal	Buenaventura	General	30	132	72
Charles H. Cramp	3	4.30	3	6.35	3	15.02	3	21.52	American	Argonaut Steamship Line	404.6	53.0	28.8	Baltimore	Seattle	General	8,355	6,755	4,750
Dillwyn [1]	3	7.20	3	7.55	3	15.28	3	16.35	American	Malston & Co	435.0	56.0	22.0	New York	San Pedro	Ballast		7,441	5,099
Schwarzwald	3	6.40	3	8.33	3	16.20	3	19.25	German	Hamburg-American Line	399.6	54.2	21.3	Hamburg	Valparaiso	General	2,979	6,571	4,607
Agwisea [1]	3	13.35	4	6.03	4	13.29	4	14.30	American	Atlantic Gulf & W. I. S. S. Co	468.3	62.7	21.6	New York	Los Angeles	Ballast		9,802	6,961
Atto	2	22.40	3	13.00	3	20.30	3	21.40	German	Roland Line	360.0	51.0	22.3	Hamburg	Corral	General	4,379	4,805	3,400
J. N. Pew [1]	4	7.35	4	7.45	4	15.03	4	20.56	American	Sun Oil Co	480.5	66.0	22.0	Philadelphia	San Pedro	Ballast		9,494	6,612
Tekoa	4	16.00	5	4.10	5	11.34	5	19.35	British	New Zealand Shipping Co	460.6	62.8	22.6	Liverpool	Auckland	General	5,531	10,259	7,092
Havana Maru	4	17.20	5	5.13	5	14.24	5	15.42	Japanese	Osaka Shosen Kaisha	407.0	50.0	24.0	New York	Yokohama	(5)	5,799	6,538	4,769
Commercial Scout	4	19.55	5	6.25	5	15.33	5	17.05	American	Moore & McCormick	251.0	37.0	20.7	Texas City	DuPont	Sulphur	2,220	2,019	1,349
Alvarado	4	18.00	5	6.33	5	15.25	5	19.35	American	Pacific Transport Co	245.0	41.5	16.0	New Orleans	Seattle	General	2,121	2,122	1,504
W. E. Hutton [1]	5	4.00	5	6.48	5	15.51	5	16.50	American	Pure Oil Co	435.0	56.0	21.6	New York	Los Angeles	Ballast		7,482	5,209
Dixie Arrow [1]	5	6.58	5	8.05	5	16.27	5	17.27	American	Standard Transportation Co	468.3	62.7	19.0	New York	Los Angeles	Ballast		9,744	7,140
Horace Luckenbach	5	6.40	5	8.45	5	16.54	5	18.05	American	Luckenbach Line	445.0	58.0	23.10	New York	Seattle	General	7,200	8,626	6,290
Romsdalshorn	5	8.18	5	9.30	5	17.52	5	18.45	Norwegian	O. G. & T. H. Olsen	420.0	53.9	15.6	Savannah	Taltal	Ballast		6,592	4,733
Indiana	4	18.25	5	11.15	5	19.04	5	20.10	French	French Line	417.0	56.0	22.4	Havre	Vancouver	General	3,706	7,157	4,936
William Rockefeller [1]	5	11.35	5	11.45	5	20.08	5	21.14	American	Standard Oil Co	554.0	75.3	23.6	New York	San Pedro	Ballast		14,785	10,313
G. Harrison Smith [1]	5	12.05	5	12.20	5	21.05	5	22.25	British	International Petroleum Co	550.3	72.5	25.0	New York	San Pedro	Ballast		15,476	10,751
Santa Tecla	5	6.20	5	13.07	5	22.15	6	13.50	American	Grace Line	298.6	40.0	21.0	New Orleans	Talcahuano	General	2,619	2,832	1,803
Loriga [3]	5	7.15	6	4.10	6	11.25	6	19.04	British	Pacific Steam Navigation Co	406.5	54.2	19.3	Glasgow	Valparaiso	General	3,309	7,331	5,091

[1] Tanker. [2] Motor schooner. [3] Motor ship. [4] Steel, tinplates, and general. [5] Refined oil and general.

Hoxbar[1]	5	14.03	6	5.10	6	12.14	6	13.25	American	Malston Line	434.8	56.2	22.0	Baltimore	San Pedro	Ballast		7,421	5,174
Lubrico[1]	5	16.05	6	5.50	6	13.31	6	14.37	British	Standard Oil Co	425.0	57.2	22.0	New York	San Pedro	Ballast		7,204	4,829
Algonquin[1]	5	16.35	6	6.30	6	14.39	6	15.45	American	Standard Transportation Co	435.0	56.0	19.9	Providence	San Pedro	Ballast		7,602	5,337
Silver Shell[1]	6	0.45	6	7.15	6	15.33	6	20.22	American	Silver Shell Steamship Co	411.6	53.4	19.0	Shileds	San Pedro	Ballast		6,213	4,343
Manchuria	6	6.32	6	8.03	6	17.29	7	3.48	American	Panama Pacific Line	600.0	65.3	26.0	New York	San Francisco	General	1,669	17,044	11,488
S. C. T. Dodd[1]	6	1.45	6	9.05	6	18.33	6	19.26	American	Standard Oil Co	425.0	57.0	17.6	Philadelphia	San Pedro	Ballast		7,481	4,975
Atholl	6	3.40	6	10.10	6	19.28	7	1.45	British	Australind Steamship Co	385.5	48.7	21.0	New York	Auckland	General	3,350	4,830	3,556
Atlantic Sun[1]	6	6.25	6	10.55	6	20.03	6	21.01	American	Sun Oil Co	429.3	59.2	18.0	Philadelphia	San Francisco	Ballast		7,568	5,283
Takaoka Maru	6	9.15	6	12.18	6	21.04	6	21.59	Japanese	Nippon Yusen Kaisha	445.0	58.0	17.0	New York	Yokohama	General	3,084	7,989	5,856
Munaires	6	13.27	6	13.40	6	22.25	7	2.34	American	Munson Line	370.0	53.0	20.0	Baltimore	Seattle	General	4,000	5,577	4,225
Plum Branch	6	21.45	7	4.55	7	13.11	7	14.15	British	Nautilus Steamship Co	398.5	53.8	17.0	Swansea	Valparaiso	(8)	2,652	5,761	3,881
Lima[6]	7	6.30	7	6.55	7	14.07	8	8.33	Swedish	Johnson Line	367.0	51.3	23.8	Gothenborg	San Francisco	General	6,113	5,304	3,909
Edgar F. Luckenbach	7	3.45	7	7.15	7	16.52	7	17.05	American	Luckenbach Line	425.0	57.3	29.6	Mobile	San Pedro	Steel, general	9,499	8,568	6,565
Panaman	7	6.35	7	8.20	7	17.09	7	22.24	American	American-Hawaiian Line	407.7	53.7	21.0	Boston	Seattle	General	5,262	7,098	5,029
H. M. Storey[1]	7	9.55	7	10.10	7	18.07	7	19.09	American	Standard Oil Co	500.0	68.2	21.0	Baltimore	Los Angeles	Ballast		11,224	7,849
Trewyn	7	10.40	7	10.55	7	19.46	7	21.01	British	Edward Hain & Son	400.1	52.4	21.0	Louisburg	Auckland	General	2,770	5,823	4,093
Cape Ann[1]	7	14.00	8	4.12	8	13.16	8	14.15	American	Cape Steamship Co	425.0	57.0	21.0	New York	San Pedro	Ballast		7,484	5,216
City of Oran	8	6.23	8	6.40	8	14.23	8	15.30	British	Montgomery Workman	465.5	58.1	25.0	New York	Otaru	General	6,600	9,533	7,417
Suruga	8	6.35	8	6.50	8	15.19	8	21.56	American	Barber Line	375.3	52 0	24.0	New York	Honolulu	Coal	6,000	5,177	3,877
Lime Branch	8	7.08	8	7.25	8	16.04	8	17.05	British	Nautilus Shipping Co	396.0	56.2	22.6	Antwerp	Valparaiso	General	4,000	6,587	5,039
Selma City	7	10.30	8	9.10	8	17.14	8	18.17	American	U. S. Steel Products Co	421.2	56.2	25.10	New York	Seattle	General, steel	8,017	7,611	5,450
Holger	8	10.20	8	11.05	8	18.09	8	19.16	German	Roland Line	429.0	53.0	20.8	Hamburg	Los Angeles	General	3,745	6,431	4,693
City of Singapore	8	3.20	8	11.09	8	19.32	8	21.45	British	Ellerman Line	433.0	57.0	23.4	New York	Sydney	General	5,027		
Cold Harbor	8	12.25	8	12.45	8	20.25	8	21.31	American	Nawsco Line (S. B.)	390.0	54.2	21.2	Boston	Seattle	(9)	3,741	6,157	4,290
Mary[7]			8		8	14.46			American	C. Rodriquez				Cristobal	Gatun Lake	Ballast		1	1

[1] Tanker. [6] Motor ship. [7] Launch. [8] General and patent fuel. [9] General, coal, and steel.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Chickasaw City	1	15.55	2	6.22	2	14.30	2	18.35	American	Isthmian Steamship Lines	395.5	55.0	27.9	Vancouver	London	General	8,209	6,886	4,675
Foldenfjord[1]	1	15.05	2	6.52	2	14.58	2	14.58	Norwegian	General Petroleum Corporation	430.4	59.3	26.6	San Pedro	Thameshaven	Gasoline	8,620	7,780	5,520
Victolite[1]	2	1.00	2	7.42	2	17.12	2	17.12	British	Imperial Oil Co	500.4	68.2	29.3	Tahra	New York	Crude oil	14,050	11,049	7,732
Agwilake[1]	2	2.40	2	9.34	2	17.40	2	17.40	American	Ward Line	468.3	62.7	28.6	San Pedro	New York	Crude oil	12,297	9,802	6,957
Cissy	2	12.00	2	12.51	2	21.15	2	22.35	Norwegian	N. O. & S. A. Steamship Co	289.5	44.2	20.5	Talcahuano	Cristobal[12]	(13)	3,500	2,976	2,119
Chilore	2	11.30	2	13.14	3	14.40	3	14 40	American	Ore Steamship Corporation	549.6	72.2	33.6	Cruz Grande	Baltimore	Iron ore	20,000	14,538	9,349
City of Naples	3	2.15	3	7.37	3	17.05	3	19.55	British	Hall Line	418.3	53.3	18.6	Sydney	New York	(14)	791	6,689	4,982
Jamaica	3	0.50	3	8.24	3	18.15			British	Pacific Steam Navigation Co	229.0	33.1	13.4	Tumaco	Cristobal	General	723	1,187	622
R-26[11]			3	9.16	3	19.05			American	U. S. Navy	175.0	16.0		Balboa	Cristobal				
District of Columbia[1]	3	9.30	3	10.15	3	19.25	4	0.50	American	Walker & Daly (S. B.)	431.0	59.2	25.3	Martinez	Tivertin	Crude oil	9,563	8,097	5,431
Halsey[1]	3	11.30	3	22.21	3	21.10	3	21.10	American	C. D. Mallory & Co	435.0	56.0	29.0	San Pedro	New York	Crude oil	10,889	7,643	5,289
Santa Luisa	3	11.35	3	13.23	3	20.30	3	23.45	American	Grace Line	360.2	51.6	25.0	Talcahuano	New York	General	4,132	5,694	3,975
K. I. Luckenbach	3	11.45	3	14.32	3	23.15	3	23.15	American	Luckenbach Line	446.0	56.1	30.6	Seattle	Boston	General	8,009	8,552	6,236
Mantaro	3	6.20	3	14.33	3	22.40	7	8.15	Peruvian	Peruvian Line	367.3	46.0	17.3	Callao	Cristobal	General	1,230	4,838	2,959
Llanquihue	3	11.10	4	6.27	4	13.55	4	15.00	Chilean	Braun & Blanchard Co	360.6	43.2	25.0	Talcahuano	London	Grain	4,156	3,884	2,596
Carnarvonshire	3	6.30	4	6.43	4	15 22	4	15.22	British	Glen Line, Ltd	500.3	62.4	28.3	Vancouver	Antwerp	Wheat	10,995	11,206	8,273

[1] Tanker. [11] Submarine. [12] For orders. [13] Manganese, ore, nitrate. [14] Wool, skins, and hides.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
William G. Warden[1]	3	20.40	4	7.30	4	18.10	4	18.10	American	Standard Oil Co. of N. J.	500.0	68.2	29.0	San Pedro	New York	Crude oil	15,464	10,524	7,600
Isis	3	21.50	4	7.39	4	16.08	4	17.30	German	United American Lines	376.1	51.7	25.0	Vancouver	Hamburg	General	6,074	5,788	4,027
Lochkatrine	4	1.17	4	8.50	4	17.20	4	21.07	British	Royal Mail Steam Packet Co.	485.4	62.3	...	Seattle	Rotterdam	([19])	12,400	10,802	7,595
Tatsuno Maru	4	7.30	4	9.19	4	18.40	4	20.50	Japanese	Nippon Yusen Kaisha	445.0	58.0	18.0	Manila	New York	General	4,641	8,015	5,700
Hector	4	9.45	4	10.40	4	19.35	7	23.05	Dutch	Royal Netherlands W. I. Mail	322.0	44.0	15.0	Guayaquil	Havre	General	1,000	3,677	2,686
Lancaster	4	11.15	4	12.06	4	20.40	4	23.15	American	Argonaut Steamship Co	434.3	57.7	27.0	Tacoma	Baltimore	Ore, lumber	6,893	7,943	5,872
Ohioan	4	8.40	4	13.18	4	21.28	4	21.28	American	American-Hawaiian Line	407.7	53.7	25.0	Seattle	Boston	General	5,884	7,112	4,896
Utacarbon[1]	4	11.45	4	14.09	4	22.55	5	4.45	American	Union Oil Co	435.0	56.0	29.6	San Pedro	New York	Crude oil	11,286	7,482	5,209
Tiltborn	4	13.45	5	6.26	5	18.43	5	18.43	Norwegian	Jacob R. Olsen	420.2	53.9	28.8	Tocopilla	Savannah	Nitrate of soda	10,229	6,591	4,730
Havre Maru	4	21.15	5	7.35	5	20.25	5	20.25	Japanese	Osaka Shosen Kaisha	407.2	50.8	20.11	Shanghai	New York	([20])	4,570	5,886	4,384
W. F. Burdell[1]	5	8.30	5	9.39	5	21.20	5	21.20	American	Pure Oil Steamship Co	435.0	56.0	28.0	San Pedro	Bayonne	Crude oil, bulk	9,881	7,433	5,093
Maryland	4	21.00	5	11.23	5	22.50	6	0.20	French	Cie. Generale Transatlantique	427.0	54.0	24.7	Vancouver	Le Havre	General	7,460	6,234	4,639
Songelv	5	17.25	6	6.14	6	18.44	6	23.20	Norwegian	S. O. Stray Line	295.0	43.6	15.6	Paita	New York	([21])	1,732	2,909	1,884
Aladdin[1]	2	22.10	6	7.17	6	19.25	6	19.25	American	Standard Transportation Co	435.6	56.2	27.6	San Pedro	Providence	Crude oil	9,142	7,408	5,112
Durango[1]	5	24.00	6	8.14	6	20.25	6	20.25	American	C. D. Mallory & Co	435.0	56.0	28.9	San Pedro	New York	Crude oil	10,459	7,643	5,301
Clan Alpine	6	3.30	6	9.24	6	21.41	7	8.45	British	Cayzer, Irving & Co	410.2	53.5	24.0	Pam	Cristobal[16]	Copra, ores	5,000	7,025	5,182
Vancolite[1]	6	4.30	6	11.14	6	22.34	6	23.25	British	Imperial Oil Co., Ltd	499.6	68.0	28.6	Talara	New York	Crude oil	15,500	11,043	7,874
West Camargo	6	13.00	6	14.18	6	23.29	7	4.05	American	Swayne & Hoyt	410.5	54.0	19.2	San Francisco	Buenos Aires	General, lumber	2,589	6,624	4,910
El Norte	6	12.30	6	14.22	6	23.15	6	23.15	Panaman	Enrique Hurtado	55.0	16.8	5.5	Panama Bay	Colon	.....	.....	32	26
Happy Days[15]	.....	.....	6	.....	6	.....	.....	.....	American	H. J. Quigley	20.0	5.0	.....	Balboa	Gatun Lake	.....	.....	1	1
Suwarinco	6	15.00	7	6.22	7	16.50	7	16.50	American	Transmarine Corporation	324.0	46.2	21.0	Seattle	Port Newark	Lumber	3,000	3,984	2,612
Acajutla	6	14 45	7	6.25	7	16.55	9	6.10	British	Pacific Steam Navigation Co	215.7	33.5	17.0	Champerico	Cristobal	Coffee, general	1,097	1,273	706
Agwibay[1]	6	21.10	7	7.47	7	18.37	7	18.37	American	Ward Line	468.3	62.7	28.6	San Pedro	New York	Crude oil	12,800	9,776	6,903
Robert E. Hopkins[1]	6	21.30	7	7.39	7	17.50	7	17.50	American	Tidewater Oil Co	424.4	58.2	25.6	San Pedro	Fall River	Crude oil	10,000	7,333	5,244
Albaro	6	10.25	7	8.14	7	19.43	.....	.....	Italian	La Veloce Line	321.2	40.2	16.9	Valparaiso	Genoa	General	515	3,039	2,090
Colonial	6	21.30	7	8.46	7	22.00	7	23.30	British	Thos. & Jas. Harrison	399.5	48.5	25.0	San Francisco	Liverpool	General	6,129	5,461	3,774
Negada	7	4.00	7	9.11	7	22.15	8	0.45	German	Kosmos Line	410.8	50.6	26.0	Corral	Antwerp	General	6,384	6,402	4,463
Thames Maru	7	9.50	7	10.50	7	20.40	7	21.40	Japanese	Suzaki & Co	385.0	51.0	28.0	Caleta Buena	Colon[16]	Nitrate of soda	8,077	5,928	4,381
Mystic	7	11.30	7	12.19	7	23.05	7	23.05	American	United American Lines	400.7	54.2	25.6	Portland	New York	([22])	6,896	6,623	4,625
Pomona	7	18.10	8	6.36	8	16.55	8	16.55	American	Weyerhauser Timber Co	440.0	56.0	26.0	Everett	Baltimore	Lumber	10,000	8,300	6,026
Stanley	8	2.20	8	7.28	8	17.55	8	21.10	American	Barber Line (S. B.)	401.0	54.8	25.2	Pulupandan	New York	([23])	7,984	6,933	5,187
J. A. Bostwick[1]	8	6.00	8	8.04	8	18.40	8	18.40	American	Standard Oil Co. of N. J.	465.2	60.0	28.3	San Pedro	New York	Crude oil	12,500	8,511	5,981
W. C. Teagle[1]	8	7.05	8	8.49	8	20.35	8	20.35	American	Standard Oil Co. of N. J.	499.1	68.2	30.3	San Pedro	New York	Crude oil	13,500	10,991	7,986
Oropesa	7	22.00	8	10.34	8	20.00	9	1.20	British	Pacific Steam Navigation Co	530.0	66.0	31.0	Liverpool[17]	Liverpool[18]	General	11,000	14,510	10,260
City of Para	8	4.20	8	13.40	8	21.43	.....	.....	Panaman	Pacific Mail Steamship Co	345.0	38.6	23.10	San Francisco	Cristobal	General	2,581	3,739	2,459
Koranton	8	13.30	8	14.43	8	23.20	8	23.20	British	R. Chapman & Sons	412.6	55.5	27.0	Vancouver	Marseilles	Wheat in bulk	9,623	6,811	4,810

[1] Tanker. [15] Launch. [16] For orders. [17] Via Straits of Magellan. [18] Via Habana. [19] Grain, fruit, and canned goods. [20] Bean, oil, wool, and general. [21] Coffee, cotton, cocoa, and hides. [22] Lumber, wheat, and general. [23] Sugar, hemp, rope and cocoa oil. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 2..	Heredia.....	United Fruit Co.....	New Orleans via Habana.	March 2....	Heredia.....	United Fruit Co.....	Bocas del Toro.
March 3.....	Orca.....	Royal Mail Steam Packet Co.....	New York via wayports.	March 4....	Orca.....	Royal Mail Steam Packet Co.....	Cartagena.
March 4.....	Panama.....	Panama Railroad Steamship Line..	New York via Haiti.	March 4....	St. Mihiel [25].....	U. S. Army.....	New York.
March 4.....	Turrialba.....	United Fruit Co.....	New Orleans via Habana.	March 5....	Heredia.....	United Fruit Co.....	New Orleans via Habana.
March 4.....	San Blas.....	United Fruit Co.....	Boston via Habana.	March 5....	La Isla [26].....	L. J. Vacarro & Bros.....	Colon.
March 5.....	Yuma.....	Mexican-American Fruit Co.....	New Orleans via wayports.	March 5....	Yuma.....	Mexican-American Fruit Co.....	Frontera via San Blas.
March 5.....	Borgestadt [1].....	A. S. Borgestadt.....	Curacao.	March 6....	Metapan.....	United Fruit Co.....	Colombian ports.
March 5.....	Heredia.....	United Fruit Co.....	Bocas del Toro.	March 6....	Turrialba.....	United Fruit Co.....	New Orleans via wayports.
March 5.....	Metapan.....	United Fruit Co.....	New York via Kingston.	March 6....	San Blas.....	United Fruit Co.....	Boston via Port Limon.
March 6.....	Empress of Britain...	Canadian-Pacific Line.....	New York via wayports.	March 7....	Borgestadt [1].....	A. S. Borgestadt.....	Tampico.
March 7.....	Ulysses [24].....	Panama Railroad Steamship Line..	Norfolk.	March 7....	Empress of Britain...	Canadian-Pacific Line.....	Cartagena.
March 7.....	Calamares.....	United Fruit Co.....	New York via Cuba and Jamaica.	March 8....	Calamares.....	United Fruit Co.....	New York via wayports.
March 8.....	Motagua.....	Elders & Fyffes, Ltd.....	Port Limon.	March 8....	Motagua.....	Elders & Fyffes, Ltd.....	Kingston.
March 8.....	Yuma.....	Mexican-American Fruit Co.....	San Blas.	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....

[1] Tanker. [24] Collier. [25] Transport. [26] Motor schooner.

PORT OF BALBOA.

March 3.....	Argo.....	D. T. Baker.....	Pacora, Panama.	March 3....	Argo.....	D. T. Baker.....	Panama.
March 5.....	Lirio de Agua.....	Western Freighters, Ltd.....	Vancouver.	March 8....	Lirio de Agua.....	Western Freighters, Ltd.....	San Francisco.
March 5.....	Dilworth [1].....	Struthers & Barry (S. B.).....	Port San Luis.	March 7....	Dilworth [1].....	Struthers & Barry (S. B.).....	Port San Luis.
March 6.....	Ohio [27].....	E. W. Scripps.....	Panama waters.	March 7....	Ohio [27].....	E. W. Scripps.....	San Diego.
March 8.....	Montebello.....	Union Oil Co.....	Port San Luis.	.....	.....	.....	.....

[1] Tanker. [27] Yacht.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in February, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States coastwise:							
United States	80	355,244	449,263	567,598	356,411	$366,814.65	210,388
From United States to South America:							
British	6	16,524	19,919	26,472	16,477	20,655.00	19,427
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	3,032
Danish	1	3,585	4,418	5,702	3,583	3,180.96	.....
Danzig	1	6,403	8,085	8,966	5,107	8,003.75	.....
Japanese	4	17,300	18,174	23,434	17,007	17,313.15	9,180
Norwegian	2	6,821	8,960	10,924	6,842	6,801.85	136
United States	9	30,505	35,676	49,946	30,867	29,518.14	10,676
Totals	24	84,617	99,904	132,754	83,859	89,821.60	42,451
From United States to Far East:							
British	7	26,934	35,243	43,072	27,091	33,667.50	49,111
Danish	1	1,566	1,788	2,381	1,480	1,957.59	2,628
Japanese	7	28,564	32,990	42,149	28,078	35,228.90	48,809
United States	6	26,179	33,552	39,882	25,761	32,723.75	45,804
Totals	21	83,243	103,573	127,484	82,410	103,577.65	146,352
From Europe to United States:							
British	6	18,935	24,962	30,899	19,470	18,446.88	5,703
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
Dutch	1	3,514	4,395	5,789	3,381	3,164.10	.....
French	2	10,299	11,968	16,535	9,759	12,873.75	1,765
Japanese	1	4,268	4,658	5,827	4,228	5,335.00	6,507
Norwegian	5	19,200	23,407	29,756	18,984	20,499.68	23,047
Swedish	1	2,303	3,969	3,802	2,839	2,878.75	4,080
United States	3	15,278	17,845	21,734	15,204	15,942.30	12,351
Totals	20	79,310	99,120	123,330	79,038	84,840.28	53,453
From Europe to South America:							
British	6	24,545	30,478	40,134	24,619	28,867.74	17,373
Dutch	3	6,893	10,199	11,015	6,867	8,616.25	6,481
German	4	15,033	19,093	24,318	15,154	18,791.25	10,947
Italian	2	5,802	7,373	10,052	5,718	7,252.50	2,985
Peruvian	1	989	2,405	3,305	1,514	1,236.25	803
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	324
Totals	17	57,382	75,066	96,402	58,274	69,913.99	38,913
From Europe to Canada:							
British	8	35,095	44,305	56,173	35,107	37,151.22	7,842
Dutch	2	10,681	12,683	17,015	10,633	10,843.56	707
French	2	8,599	9,249	12,020	7,563	10,454.15	5,513
Totals	12	54,375	66,237	85,208	53,303	58,448.93	14,062
From Europe to Australasia:							
British	8	47,988	63,380	77,148	48,381	59,985.00	54,336
French	1	4,308	4,983	6,888	4,427	5,385.00	4,098
Totals	9	52,296	68,363	84,036	52,808	65,370.00	58,434
From United States to Australasia:							
British	8	27,935	39,846	44,688	28,163	34,918.75	37,727
French	1	833	1,055	1,295	770	1,041.25	670
United States	1	4,335	4,321	5,716	4,271	5,185.20	6,451
Totals	10	33,103	45,222	51,699	33,204	41,145.20	44,848
From Cristobal to Central America:							
British	3	1,900	2,063	3,436	1,906	2,068.00	2,044
Panaman	1	26	26	.....	.....	19.50	.....
Totals	4	1,926	2,089	3,436	1,906	2,087.50	2,044
From Cristobal to South America:							
British	2	677	694	1,249	702	825.15	306
Peruvian	2	2,710	5,337	9,147	4,763	3,387.50	822
Totals	4	3,387	6,031	10,396	5,465	4,212.65	1,128

ATLANTIC TO PACIFIC.—Continued.

Route and registry.	No. of vessel	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From United States to Canada:							
British	2	5,252	6,227	8,770	5,349	$6,565.00	3,068
United States	2	8,075	10,194	13,064	8,034	10,093.75	9,933
Totals	4	13,327	16,421	21,834	13,383	16,658.75	13,001
From Cristobal to United States:							
United States	2	2,821	3,712	4,617	2,815	3,016.11	1,456
From Mexico to South America:							
British	1	4,248	4,723	7,335	4,259	5,310.00	9,133
United States	1	4,263	5,143	7,072	4,360	5,328.75	10,000
Totals	2	8,511	9,866	14,407	8,619	10,638.75	19,133
From Canada to Australasia:							
British	2	6,277	8,313	10,133	6,303	7,846.25	5,911
From Europe to Central America:							
German	1	2,277	3,117	3,810	2,355	2,846.25	1,647
Foreign vessels in ballast, United States intercoastal:							
Danzig	1	5,521	7,943	8,953	5,119	5,718.96	.....
From South America to United States:							
United States	1	3,517	4,931	5,721	3,557	4,396.25	7,360
From South America to Far East:							
Japanese	1	3,666	4,282	5,848	3,633	4,582.50	4,054
From Canada to Far East:							
British	1	4,624	6,637	7,247	4,635	5,780.00	9,930
From Mexico to United States:							
British	1	7,497	8,664	11,877	7,353	6,238.08	.....
From West Indies to Canada:							
Danish	1	3,033	3,428	4,932	3,037	3,791.25	5,250
From Canada to South America:							
British	1	7,632	7,732	10,825	7,743	5,724.00	.....
Totals, February, 1924	219	873,586	1,099,914	1,392,547	874,930	963,469.60	679,815
Totals, February, 1923	175	680,455	840,376	1,070,890	680,637	733,122.37	563,439
Totals, February, 1922	114	394,817	488,005	605,323	384,957	482,933.41	442,825

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	100	457,843	571,580	729,871	457,491	$571,694.65	916,249
From South America to United States:							
British	12	44,696	57,274	70,195	44,384	53,877.42	83,881
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	9,681
Danish	2	5,841	7,886	9,420	5,890	7,301.25	15,107
Dutch	1	1,895	2,863	8,952	5,315	2,368.75	5,150
Italian	1	4,010	4,009	5,441	3,428	4,810.80	8,008
Japanese	1	4,348	4,700	5,873	4,254	5,435.00	8,440
Norwegian	1	4,107	4,733	6,583	4,121	5,133.75	10,320
United States	8	26,459	30,917	47,190	26,490	32,868.20	83,891
Totals	28	98,347	121,759	168,253	101,744	120,533.92	224,478
From Canada to Europe:							
British	10	37,477	45,355	59,824	37,691	46,846.25	81,030
French	1	4,196	5,020	6,798	4,268	5,245.00	8,364
Japanese	5	21,437	23,291	30,008	21,131	26,494.10	37,916
Spanish	2	6,834	8,568	11,472	6,861	8,542.50	14,460
Totals	18	69,944	82,234	108,102	69,951	87,127.85	141,770
From South America to Europe:							
British	5	18,423	23,848	28,550	18,011	23,028.75	35,151
Dutch	3	13,615	18,634	22,296	13,536	17,018.75	29,646
German	5	14,234	20,303	22,110	13,220	17,792.50	33,883
Italian	2	6,786	7,536	9,874	5,991	8,356.35	10,624
Norwegian	1	287	307	371	288	358.75	394
Peruvian	1	3,510	3,544	4,763	3,089	4,387.50	5,337
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	432
Totals	18	59,815	77,901	92,604	56,856	74,642.60	115,485

PACIFIC TO ATLANTIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
From United States to Europe:							
British	4	21,287	24,440	31,040	19,371	$26,608.75	39,093
Dutch	1	4,547	7,056	7,310	4,495	5,683.75	9,275
German	1	2,368	2,717	3,788	2,371	2,960.00	4,830
Norwegian	1	4,523	5,627	7,093	4,479	5,653.75	10,000
Swedish	1	3,386	5,456	5,558	4,246	4,232.50	9,025
United States	3	11,574	15,991	19,451	11,498	14,467.50	22,656
Totals	11	47,685	61,287	74,240	46,460	59,606.25	94,879
From Central America to Cristobal:							
British	4	2,514	2,685	4,574	2,508	3,127.90	3,985
From South America to Cristobal:							
British	1	63	72	111	100	78.75	.....
Peruvian	2	2,193	4,791	7,708	3,604	2,741.25	4,325
Totals	3	2,256	4,863	7,819	3,704	2,820.00	4,325
From Australasia to Europe:							
British	5	31,235	38,614	47,761	30,129	38,794.40	31,432
From Australasia to United States:							
British	2	6,481	8,454	10,733	6,563	8,101.25	3,710
From Far East to United States:							
United States	1	3,467	4,833	5,587	3,467	4,333.75	6,250
From United States to West Indies:							
British	1	3,246	4,512	5,277	3,212	3,248.64	.....
Foreign vessels in ballast United States intercoastal:							
Norwegian	1	4,407	5,051	7,022	4,438	3,636.72	.....
From Mexico to Europe:							
German	2	4,102	6,056	6,785	4,084	5,127.50	6,355
From Canada to West Indies:							
British	1	3,173	4,126	5,225	3,190	3,966.25	7,232
From Canada to United States:							
United States	1	3,131	3,251	4,921	3,192	3,913.75	4,139
From United States to Cristobal:							
United States	1	1,654	2,163	2,643	1,654	2,067.50	1,417
From United States to South America:							
United States	1	3,634	4,873	5,867	3,634	4,542.50	2,095
From South America to Mexico:							
British	1	4,248	4,723	7,335	4,259	3,400.56	.....
Totals, February, 1924	199	807,182	1,008,965	1,294,619	806,536	1,000,685.99	1,563,801
Totals, February, 1923	151	557,351	689,171	872,804	551,092	690,831.84	999,839
Totals, February, 1922	98	315,731	398,530	499,713	315,169	383,332.77	395,249

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port au Prince.	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince.	Arrive New York.
Cristobal [1]	March 5	March 10	March 13	March 19	March 22	March 26.
General W. C. Gorgas	March 15	March 21	March 24	March 29	April 1	April 6.
Panama	March 25	March 30	April 2	April 9	April 12	April 16.
Cristobal [1]	April 5	April 10	April 13	April 19	April 22	April 26.
General W. C. Gorgas	April 15	April 21	April 24	April 29	May 2	May 7.
Panama	April 25	April 30	May 3	May 9	May 12	May 16.

[1] Sails at 3 p. m., from Pier 65, North River, foot of West 25th Street.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations must be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama; in the United States, Pancanal, Washington."

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective March 11, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.275
Brass, sheet, average	Lb.	.44
Bronze, Tobin, average	Lb.	.31
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.11
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Official Circular.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 1, 1924.

To all concerned—Surgeon Carlisle P. Knight, United States Public Health Service, is appointed Chief Quarantine Officer, effective this date, vice Surgeon William C. Rucker, United States Public Health Service, relieved from duty with The Panama Canal.

M. L. WALKER,
Acting Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $1.75 per barrel at Cristobal, and $1.45 to $2.00 at Balboa; Diesel oil, Balboa only, $2.15 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $10 per ton of 2,240 pounds at Cristobal and $13 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $10 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $11 per ton at Cristobal, $14 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Cable Rates—Peru.

Effective March 1st, the rate for cable messages from the Isthmus to Callao, Paita, Lima, and Trujillo, is 35 cents per word; to other places in Peru, 40 cents per word.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "B:"	
Ward 5, Male, private rooms, and American boys' ward	Daily 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, and American girls' ward	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.30 to 4.30 p. m.
Ward 17, Colored, children	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White, children	Daily 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, $0.50 per year; foreign, $1.00; address The Panama Canal Record, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., March 19, 1924. No. 32.

Price of Coal Reduced to $9.00 per Ton.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 14, 1924.

MEMORANDUM TO STEAMSHIP AGENTS:

Referring to memorandum on the subject of bunker coal, dated January 22, 1924, the purchase price of coal in the United States permits reduction of bunkers to $9 per ton at Cristobal and $12 per ton at Balboa, effective March 15, 1924.

Attention is again invited to the dominant effect upon our bunker prices of cooperation or noncooperation of shipping interests. The price of coal can be kept down if about 30,000 tons per month are passed through the plant.

M. L. WALKER,
Acting Governor.

Supplement No. 8.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., March 13, 1924.

ITEM 21—COAL.
(Effective March 15, 1924.)

	Cristobal-Colon.	Balboa.
4. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$9.00	$12.00
5. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting transit		9.00
6. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more (per ton of 2,240 pounds)	10.00	13.00
7. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons, and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6 (per ton of 2,240 pounds)	12.00	15.00

M. L. WALKER,
Acting Governor, The Panama Canal.
Second Vice President, Panama Railroad Company.

Traffic During the First Fifteen Days of March.

From March 1 to 15, inclusive, 206 commercial vessels and 9 small launches measuring under 20 tons passed through the Canal. Tolls on the 206 commercial vessels amounted to $984,183.39, and on the launches to $19.50, making the total tolls for the period $984,202.89.

The average daily number of commercial transits during the first 15 days of March, 1924, was 13.73, and the average daily tolls thereon were $65,612.23. The average daily tolls on all traffic was $65,613.53. These figures are considerably less than those of the high months for Canal

traffic. This is due to the falling off of crude oil shipments from the Southern California oil fields, the peak of which shipments appears to have been reached in September, 1923. During that month 944,148 long tons of crude oil were shipped through the Canal from the Pacific to the Atlantic; February, 1924, shows 643,318 long tons, a decline of over 300,000 tons.

Comparison of the first 8 months of the current fiscal year and the first 15 days of March, 1924, is shown in the following tabulation, with totals for the current fiscal year to March 15, and the daily averages for the same period, for commercial traffic only:

Month.	Total transits.	Total tolls.	Daily average transits.	Daily average tolls.
July	474	$2,124,830.02	15.39	$68,542.90
August	454	2,050,656.97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,355,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March (15 days only)	206	984,183.39	13.73	65,612.23
Totals, fiscal year to March 15, 1924	3,810	17,645,660.70	.....	.....
Daily averages, fiscal year to March 15, 1924	.....	.....	14.71	68,129.96

Traffic to and from Australasia Through the Panama Canal.

An analysis of the traffic through the Panama Canal from Europe and North America to Australasia, with the return traffic, during the past 3 calendar years, shows the total cargo over this route to have averaged 1,371,823 tons per year, or 114,318 tons per month.

The number of transits, net tonnage, as determined by Panama Canal rules of measurement, cargo tonnage, and tolls, segregated between southbound and northbound traffic, is shown herewith for the calendar years 1921, 1922, and 1923:

	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.	Tolls.
1921:				
Southbound traffic	169	966,651	861,566	$990,959.78
Northbound traffic	115	716,398	606,420	741,570.40
Totals	284	1,683,049	1,467,986	1,732,530.18
1922:				
Southbound traffic	156	924,047	783,525	913,560.92
Northbound traffic	82	427,172	386,966	449,998.65
Totals	238	1,351,219	1,170,491	1,363,559.57
1923:				
Southbound traffic	207	1,195,150	1,112,172	1,183,344.55
Northbound traffic	84	475,207	364,821	482,963.70
Totals	291	1,670,357	1,476,993	1,666,308.25

The above shows with regard to the southbound traffic, a slight decline in 1922, as compared with the preceding year, which loss, however, was more than compensated by the increased southbound traffic in 1923.

In the northbound traffic, however, the decrease in net tonnage, cargo tonnage and tolls in 1922, amounted to more than a third as

compared with the preceding year, and this loss was not regained during the calendar year 1923.

Aggregate transits for the 3 years show that 532 vessels transited the Canal southbound and 281 northbound, indicating that nearly one-half of the total southbound vessels returned by some route other than the Panama Canal. This tendency was even more marked during the past calendar year, when the ratio of southbound transits to northbound was approximately 2.5 to 1.

TRAFFIC BETWEEN NORTH AMERICA AND AUSTRALASIA.

Trade between North America and Australasia is largely a one-way traffic, the ratio of southbound transits to northbound transits being approximately 4 to 1, this, of course, being due to the fact that Australasia's exports are largely raw materials, of which North America has large domestic supplies. Australasia's imports from North America consist of iron, steel, agricultural implements, automobiles, and automobile accessories, mineral oils, sulphur, and miscellaneous manufactured goods. In return she exports chiefly copra, wool, hemp, skins and hides, and cold-storage food products.

During 1922, trade between North America and Australasia fell below that of the preceding year, but 1923 showed a substantial increase over both previous years. This traffic is summarized in the following statement:

	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.	Tolls.
Southbound:				
1921	91	437,296	514,966	$456,376.38
1922	76	398,077	418,581	389,134.75
1923	125	610,186	640,055	604,251.35
Northbound:				
1921	17	71,861	59,035	73,237.75
1922	25	111,950	80,849	120,320.50
1923	33	150,965	76,171	158,520.15

Traffic between Canada and Australasia is included in the above tabulation; combined transits in both directions in this trade were 10, 23, and 34, respectively, for the years 1921, 1922, and 1923, with corresponding increases in net and cargo tonnage.

TRAFFIC BETWEEN EUROPE AND AUSTRALASIA.

In the European-Australasian trade, the southbound traffic has remained practically stationary during the 3-year period under consideration, in so far as number of transits and net tonange are concerned; the cargo tonnage however, for 1923, shows a considerable increase over the two preceding years. The northbound traffic, from Australasia to Europe, has fallen off considerably, the total for 1923 being approximately only half that for 1921. The trade with Europe is practically all with the British Isles, Australasia's imports being chiefly various manufactured goods, coal and coke, and her exports to Great Britain, chiefly cold-storage food products, such as beef, mutton, butter, cheese, etc., copra, wool, wheat, and phosphates.

The number of transits, net tonnage, cargo tonnage, and tolls of vessels in this trade, segregated between southbound and northbound traffic, are shown herewith for the calendar years 1921, 1922, and 1923:

	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.	Tolls.
Southbound:				
1921	78	529,355	346,600	$534,583.40
1922	80	525,970	364,944	524,426.17
1923	82	584,964	472,117	579,093.20
Northbound:				
1921	98	644,537	547,385	668,332.65
1922	57	315,222	306,117	329,678.15
1923	52	324,242	288,650	324,443.55

It will be seen that for 1921, the northbound traffic in this trade exceeded the southbound, while for 1922 and 1923, conditions are reversed, with the southbound traffic greatly in excess of the northbound.

NATIONALITY OF VESSELS.

Classifying the traffic passing through the Canal, en route to and from Australasia by flag, it will be found that British tonnage predominates, and comprises approximately 90 per cent of the total tonnage in this trade. The following tabulation shows the British tonnage as compared with the combined tonnage of all other nationalities in this trade:

	No. of transits.	Panama Canal net tonnage.	Cargo tonnage.	Tolls.
1921:				
British	242	1,512,489	1,254,790	$1,559,523.08
All other nationalities	42	170,560	213,196	173,007.10
1922:				
British	209	1,235,370	1,050,771	1,237,483.12
All other nationalities	29	115,849	119,720	126,076.45
1923:				
British	252	1,492,065	1,319,023	1,474,248.50
All other nationalities	39	178,292	157,970	192,059.75

Vessels of American registry comprised about 6 per cent of the total tonnage engaged in the Australasian traffic, and ranked next to the British in number of transits, net tonnage, cargo tonnage, etc. Transits of American vessels averaged approximately one per month during this 3-year period, and for the greater number were Shipping Board vessels, chartered for this trade, and engaged exclusively in the United States Australasian traffic. Vessels of United States registry carried less than 12 per cent of the cargo tonnage routed between the United States and Australasia through the Canal.

Panama and Suez Traffic in 1923.

In the PANAMA CANAL RECORD for February 27, 1924, there was published a comparison of the net tonnage of vessels using the Panama and Suez Canals during the calendar year 1923. As the measurement rules of the two Canals are not identical, and as the Suez statistics include all vessels in transit, while United States Naval vessels, Army transports, and other public vessels of the United States, are commonly omitted from the Panama statistics, an exact comparison on the basis of net tonnage is difficult. The statistics of cargo in transit are a more important measuring rod. According to figures published in the *Suez Bulletin* for January 25, 1924, the cargo passing through the Suez Canal in 1923 totaled 22,777,000 tons. The cargo in transit through

the Panama Canal during the same period aggregated 25,160,545 tons in commercial vessels, and 247,560 tons in ships in Government service, a total of 25,408,105 tons.

Notice to Mariners.—Aids to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 17, 1924.

The following has been furnished through the kindness of W. Andrews & Co., steamship agents:

"PUERTO COLOMBIA LIGHTS:

"A provisional light is exhibited from Verde Island in approximately Lat. 11° 1′ 53″ N., Long. 75° 0′ 24″ W., about 1,200 yards, 200° true from charted position of old light. Characteristics are: Height of light, 35 feet; flashing white every 6 seconds and visible 12 miles. Above particulars supplied by Captain of Port. (I think 12 miles range rather two much, probably about 8 miles.) The red flashing light buoy off end of pier, marking position of Lafayette Rock is not now functioning, and the buoy lies about 300 feet southward of charted position. The rock is marked by a small red flag. Master S. S. *Antillian*."

M. L. WALKER,
Acting Governor.

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs since last report dated January 29, 1924:

Yacht *Ohio*, dock and undock, stage and clean and paint underwater body; paint top side; repair sea valves; renew zincs and perform miscellaneous minor repairs in deck, steward's and engineer's department; steamships *Manuel Arnus*, dock and undock, stage and clean, and paint underwater body; perform miscellaneous minor repairs in engineer's department; *Ostego*, renew approximately 20 boiler tubes; repair feed pump; remove and replace lagging on boilers; launch *Petrolio*, repair gas engine; manufacture new gasoline tank; repair, calk and recopper hull; steamship *Izgled*, dock and undock; renew 13 hull plates (shell); fair 3 plates in place; remove, fair and replace 3 plates; furnish services of diver and outfit; manufacture 4 steering chains; remove and repair propeller; examine anchor windlass; repair sea valves and perform miscellaneous repairs in engineer's department; barges *No. 132*, general repairs and alterations; dock and undock; clean and paint; *No. 136*, general repairs and alterations; dock and undock; clean and paint; tug *La Boca*, general running repairs in engineer's and deck departments; motor schooners *Laura C. Hall* and *Atrato*, and steamships *Rotorura*, *Comeric*, *A. C. Bedford*, *Lirio de Agua*, *Ionic*, *Tainui*, and *Santa Tecla*, minor repairs.

PREVIOUSLY REPORTED.

Launch *L–55*, and Colombian coast guard cutter *No. 3*.

The following vessels were at the Cristobal shops for repairs during the week ended March 17, 1924:

Steamship *Cristobal*, remove H. P. head from steamship *Ancon* and install on board; remove vulcan refrigerating machine and blank off holes in deck; relocate and connect up brine pumps as directed; install doubling plate for refrigerating machine; remove present brine tank and install and connect up new tank; remove hatch coaming around No. 6 blind hatch, orlop deck and fit beams and plate over openings and make tight; finish calking boat deck and scaling and painting around and under fresh water tanks; complete scaling, cleaning and cement washing No. 4 inner bottom tank, etc.; *La Isla*, dry dock, scale and paint rudder and renew copper sheathing as directed; repair main engine, circulating pump, boiler, boiler fittings, and manhole plates for fresh water tank; install two deck bitts; draw tail shaft for survey; rewood stern bushing; manufacture new coupling end for crank shaft of main engine, etc.; *Challenger*, brace and reinforce steering engine foundation as directed by surveyor; manufacture bolt for main engine and repair piping as directed; U. S. Navy barge *No. 11*, dock, clean and paint bottom; repair guard rail; steamship *Newport*, repair two fire nozzles, H. P. guides, eccentrics on dynamo crank shaft, sanitary pump and boiler check and stop valves; anneal and test steering chains; manufacture new reach rod and two new neck bushings for dynamo, etc.; *Laurel Branch*, *Camden*, *Oranje Nassau*, *Canadian Spinner*, *Eupatoris*, *Pastores*, *Achilles*, and launch *Buster Hull*, minor repairs.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, February, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.					Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of North America.[1]	West coast of Central America.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																							
United States—																							
North Atlantic ports	19,309			5,025	16,067	40,401	173,171	277	7,436		180,884	80,877	25,542	4,773	3,356	114,548	3,403	20,175	16,287	39,865	2,945	378,643	55.8
South Atlantic ports												2,454				2,454						2,451	0.4
Gulf ports					1,254	1,254	34,928	3,068			37,996	17,272	2,929		20,341	40,542			5,709	5,709		85,492	12.5
Totals, United States	19,309			5,025	17,321	41,655	208,099	3,345	7,436		218,880	100,603	28,471	4,773	23,697	157,544	3,403	20,175	21,987	45,565	2,945	466,589	68.7
East coast of Mexico	19,133					19,133																19,133	2.8
Cristobal, C. Z.[2]	29	306		646	705	1,686	451	4		3,494	3,949											5,635	0.9
East coast of Canada												2,340				2,340	1,138	1	4,172	5,311		7,651	1.1
West Indies					3	3		5,250			5,250											5,253	0.8
Totals, North America	19,162	306		646	708	20,822	451	5,254		3,494	9,199	2,340				2,340	1,138	1	4,172	5,311		504,261	74.3
Europe:																							
British Isles	3,792				7,802	11,594	16,199	4,359			20,558						18,361	7,810	19,172	45,343		77,495	11.5
France	18					18	1,632	950			2,582								4,098	4,098		6,698	1.0
Germany	5,427	544	2	596	6,474	13,043	211			1,647	1,858											14,901	2.1
Holland	129				296	425	8,128	125			8,253											8,678	1.3
Spain	90				324	414											3,231			3,231		3,645	0.2
Belgium	170	1,000				1,170	18,077	583			18,660											19,830	2.8
Italy	791			71	2,015	2,877																2,877	0.5
Europe [1]					8,583	8,583	349				349						5,755			5,755		14,687	2.2
Norway and Sweden							15,163				15,163										2,000	17,163	2.5
Totals, Europe	10,417	1,544	2	667	25,494	38,124	59,759	6,017		1,647	67,423						27,347	7,810	23,270	58,427	2,000	165,974	24.1
East coast of South America				125		125	7,439				7,439	2,016				2,016						9,580	1.6
Grand totals	48,888	1,850	2	6,463	43,523	100,726	275,748	14,616	7,436	5,141	302,941	104,959	28,471	4,773	23,697	161,906	31,888	27,986	49,322	109,303	4,945	678,815	
Per cent of total cargo:																							
February, 1924	7.1	0.3		0.9	6.4	14.7	40.6	2.1	1.1	0.8	44.6	15.5	4.1	0.7	3.5	23.8	4.7	4.1	7.3	16.1	0.8		100.0
February, 1923	5.4	0.3	0.5	1.1	5.5	12.8	53.9	0.2	2.3	0.8	57.2	0.8	3.4	0.3	4.8	15.3	6.0	2.4	6.0	14.4	0.3		100.0
February, 1922	11.2	0.3	2.7	2.6	0.6	17.6	20.4	1.6		0.6	33.2	28.2	4.5	1.2	0.8	34.8	10.8	3.6		14.4			100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, February, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[2]	Italy.	Norway and Sweden.	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																		
South America:																						
Chile	128,698	49,660	37,799	216,157	....	11	.....	162	216,330	20,608	4,760	1,956	8,276	14,854	432	36,973	4,842	....	92,701	.....	309,031	19.8
Colombia	12	.....	.....	12	....	....	.....	162	174	.....	.....	.....	.....	.....	....	.....	.....	....	.....	.....	174	.....
Ecuador	.....	.....	.....	.....	....	....	.....	614	614	.....	.....	.....	738	.....	....	33	.....	....	771	.....	1,385	.....
Peru	3,695	.....	.....	3,695	....	....	.....	1,490	5,185	9,060	.....	10	60	.....	....	.....	.....	....	9,130	.....	14,315	0.9
West coast of South America	3,958	.....	.....	3,958	....	....	.....	2,620	6,578	.....	.....	.....	5,795	.....	....	890	5,800	....	12,485	.....	19,063	1.2
Totals, South America	136,363	49,660	37,799	223,822	....	11	.....	5,048	228,881	29,668	4,760	1,966	.....	14,854	432	37,896	10,642	....	115,087	.....	343,968	21.9
North America:																						
West coast, United States	852,520	986	57,624	911,130	....	500	1,484	.....	913,114	69,957	.....	714	9,132	91	....	6,625	.....	....	86,519	2,095	1,001,728	64.0
West coast of Canada	6,404	.....	.....	6,404	....	....	.....	7,232	13,636	46,591	32,929	13,648	.....	43	....	50,447	.....	....	143,658	.....	157,294	10.0
West coast, Central America	.....	.....	.....	.....	....	....	.....	6,802	6,802	341	.....	.....	4,591	20	....	3,322	.....	....	8,274	.....	15,076	1.1
West coast, North America[1]	.....	.....	.....	.....	....	....	.....	.....	.....	865	.....	572	.....	.....	....	2,906	.....	....	4,343	.....	4,343	0.3
Totals, North America	858,924	986	57,624	917,534	....	500	1,484	14,034	933,552	117,754	32,929	14,934	13,723	154	....	63,300	.....	....	242,794	.....	1,178,441	75.4
Asia:																						
Philippines	6,250	.....	.....	6,250	....	....	.....	.....	6,250	.....	.....	.....	.....	.....	....	.....	.....	....	.....	.....	6,250	0.4
Australasia:																						
Australia	2,570	.....	.....	2,570	....	....	.....	.....	2,570	.....	.....	.....	.....	.....	....	.....	.....	....	.....	.....	2,570	0 2
New Zealand	450	.....	.....	450	....	....	.....	.....	450	30,982	.....	.....	.....	.....	....	.....	.....	....	30,982	.....	31,432	2.1
Australasia	1,140	.....	.....	1,140	....	....	.....	.....	1,140	.....	.....	.....	.....	.....	....	.....	.....	....	.....	.....	1,140	.....
Totals, Australasia	4,160	.....	.....	4,160	....	....	.....	.....	4,160	30,982	.....	.....	.....	.....	....	.....	.....	....	30,982	.....	35,142	2.3
Grand totals	1,005,697	50,646	95,423	1,151,766	....	511	1,484	19,082	1,172,843	178,404	37,689	16,900	28,592	15,008	432	101,196	10,642	....	388,863	2,095	1,563,801	.....
Per cent of total cargo:																						
February, 1924	64.3	3.3	6.1	73.7	....	....	.....	1.2	74.9	11.4	2.4	1.1	1.8	1.1	....	6.4	0.7	....	24.9	0.2	.....	100.0
February, 1923	54.6	9.8	2.6	67.0	1.5	3.3	0.2	0.8	72.8	13.9	0.4	0.4	0.4	0.5	1.5	8.9	0.1	0.8	26.9	0.3	.....	100.0
February, 1922	42.7	0.2	0.7	43.6	....	0.5	.....	2.4	46.6	39.7	0.4	2.7	3.8	1.0	0.1	3.9	1.3	0.4	53.3	1.0	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 15, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Nitokris	8	14.10	9	4.20	9	11.20	9	18.35	German	Kosmos Line	429.1	50.6	22.6	Hamburg	Guayaquil	General	2,038	6,652	4,704
Dinteldijk [2]	8	15.03	9	5.40	9	12.44	9	16.20	Dutch	Holland-American Line	485.1	62.1	21.0	Rotterdam	San Francisco	General	3,706	10,786	7,551
Acajutla	7	16.55	9	6.10	9	13.47	9	14.44	British	Pacific Steam Navigation Co.	215.2	33.5	13.7	Cristobal	La Union	Ballast		1,273	706
Suraileo	9	4.43	9	6.20	9	14.47	9	16.05	American	Transmarine Corporation	324.0	46.0	23.0	Newark	Seattle	General	4,800	3,984	2,612
Silksworth	8	15.58	9	7.10	9	15.08	9	16.20	British	R. S. Dalgliesh	415.2	53.3	21.3	Newcastle	New Calidonia	Coke	4,500	6,530	4,623
T. J. Williams [1]	8	16.55	9	7.55	9	16.30	11	2.20	American	Standard Oil Co	465.0	60.8	26.2	New Orleans	Balboa	Fuel oil	7,962	8,585	6,087
Canadian Prospector	8	18.35	9	8.50	9	17.06	9	19.29	British	Canadian Govt. Mer. Marine	400.0	52.0	15.6	Glasgow	Vancouver	General	2,045	5,893	4,068
Mount Berwyn	8	23.25	9	9.48	9	17.35	9	18.35	British	H. E. Moss & Co	400.0	52.0	20.0	Newport News	Iquique	Coal	3,000	5,783	3,990
Cubore [2]	8	23.55	9	10.35	9	18.12	9	19.29	American	Ore Steamship Co	450.6	57.2	18.0	Baltimore	Cruz Grande	Ballast		7,956	4,866
Otsego	9	6.40	9	11.15	9	19.24	11	19.58	American	Libby, McNeill, & Libby	370.9	45.0	24.0	Newport News	San Francisco	General	3,725	2,597	2,946
Loreto [2]	8	21.50	9	12.00	9	20.27	10	2.45	British	Pacific Steam Navigation Co.	406.6	54.2	23.0	Hull	Corral	General	6,158	7,334	5,010
Izgled	9	7.00	9	12.45	10	23.24	....	.....	Jugo-Slavic	Nav. Libera G. Racich	378.0	53.0	22.0	Cardiff	Mejillones	Patent fuel	6,100	5,236	3,987
Ruby [4]	....	.....	9	.....	9	12.26	....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Ballast		1	1
Agwipond [1]	9	19.00	10	4.30	10	12.53	10	13.53	American	Guaranty Trust Co	468.0	63.0	21.0	New York	San Pedro	Ballast		9,810	6,965
Charles Pratt [1]	8	5.47	10	6.50	10	15.08	10	16.12	American	Standard Oil Co	500.0	68.0	16.6	Tampico	San Pedro	Ballast		10,313	7,492
Pyro [4]	9	7.37	10	7.10	10	15.50	14	18.00	American	U. S. Navy	483.10	60.10	17.5	Hampton Rds.	San Diego	(7)	3,732	.....	.....
Mevania [1]	10	6.55	10	8.00	10	17.11	10	18.15	American	Malston Line	425.8	57.0	18.0	Baltimore	Los Angeles	Ballast		7,485	5,216
Zinal	10	6.20	10	8.44	10	18.06	10	19.30	British	Turner Brightman & Co	399.0	54.0	17.0	New York	Sydney	General	5,440	5,734	4,122
Ebro	9	18.40	10	13.05	10	20.32	10	22.09	British	Pacific Steam Navigation Co.	450.0	57.0	23.3	New York	Valparaiso	General	1,743	9,151	6,227
Mitra [1]	10	9.40	10	13.15	10	21.33	10	22.45	British	Anglo-Saxon Petroleum Co	406.0	51.0	21.6	Southampton	San Pedro	Ballast		5,971	4,108
R-27 [5]	....	.....	10	12.50	10	20.30	10	21.55	American	U. S. Navy	175.0	16.7½	.....	Cristobal	Balboa	Ballast		.....	.....
Thomas P. Beal	10	13.27	11	4.15	11	14.24	11	15.40	American	Mystic Steamship Co	394.1	55.1	27.0	Baltimore	Los Angeles	General	8,507	7,047	5,100
Valdemar Skogland [2]	10	15.03	11	5.50	11	16.00	11	17.15	Norwegian	T. H. Skogland & Co	362.7	51.4	25.0	Baltimore	Hongkong	Flour	6,050	5,315	3,838
Mantaro	10	10.35	11	5.44	11	14.27	11	18.13	Peruvian	Peruvian Line	367.3	46.0	19.6	Covenas	Callao	General, cattle	452	4,838	2,959
Chaumont [6]	10	9.35	11	6.18	11	15.14	11	19.15	American	U. S. Navy	448.0	58.2	24.7	New York	Shanghai	(8)	586	.....	.....
Meiyo Maru	10	15.10	11	7.02	11	16.30	11	21.36	Japanese	Toyo Kisen Kaisha	400.0	53.0	21.2	New York	Yokohama	General	4,742	6,163	4,376
Losada [2]	11	0.45	11	8.35	11	17.22	11	23.50	British	Pacific Steam Navigation Co.	406.0	54.2	14.0	Hull	Arica	Ballast		7,221	4,844
Emidio [1]	11	2.25	11	9.17	11	16.52	11	18.13	American	General Petroleum Co	435.0	56.2	21.0	London	San Pedro	Ballast		7,433	5,058
Tricentrol [1]	11	7.25	11	10.55	11	17.49	11	20.00	British	C. T. Bowring & Co	407.4	52.2	19.1	Granton	San Pedro	Ballast		6,046	4,326
Santa Malta	11	0.10	11	12.55	11	20.26	11	21.36	American	Atlantic & Pacific S. S. Co	404.5	53.7	23.6	Baltimore	San Francisco	General	5,209	6,766	4,809
Yoseric	11	9.40	11	13.00	11	21.58	11	23.02	British	Andrew Weir & Co	400.0	52.0	24.7	New York	Manila	General	5,478	5,786	4,092
Paul Luckenbach	12	8.03	12	10.00	12	17.22	12	18.10	American	Luckenbach Line	471.0	59.0	24.0	New York	Seattle	General	9,500	9,027	6,539
City of Para	8	21.43	12	11.30	12	19.06	12	23.50	Panaman	Pacific Mail Steamship Co	340.0	38.6	19.8	Cristobal	San Francisco	General	810	3,739	2,459
Santa Elisa	12	15.20	13	5.10	13	11.27	13	16.47	American	Grace Line	360.3	51.7	23.6	New York	Talcahuano	General	2,280	5,957	4,325
Chuky [1]	12	15.33	13	5.50	13	14.08	13	15.17	British	Chile Steamship Co	440.0	56.0	26.4	Tampico	Tocopilla	Crude oil	9,519	7,691	4,723

[1] Tanker. [2] Motor ship. [3] Launch. [4] Ammunition ship. [5] Submarine. [6] Transport. [7] Ammunition and supplies. [8] Army and Navy supplies.

Maridal	12	19.33	13	6.20	13	15.12	13	16.23	Norwegian	T. Sagen	344.0	49.1	23.3	Norfolk	Vancouver	Sugar	5,200	4,206	3,029
Acme [1]	13	2.50	13	7.17	13	15.54	13	16.51	American	Standard Transportation Co	435.0	56.0	21.0	Providence	San Pedro	Ballast		7,165	4,926
Challenger [9]	10	18.25	13	7.45	13	18.40	13	23.10	American	Sun Shipyard Co	410.0	56.0	29.11	Boston	Honolulu	General	10,249	7,780	5,811
Ocean Prince	13	8.37	13	9.25	13	16.57	13	18.20	British	Rio Cape Line	416.0	52.0	18.6	Ipswich	Vancouver	Ballast		5,926	4,252
Nordfarer	13	8.48	13	9.43	13	19.30	13	22.19	Danish	Peter Brown	364.2	47.4	15.0	Charleston	Caleta Colosa	Ballast		4,289	3,092
Santore	13	10.47	13	11.12	13	20.20	13	21.39	American	Ore Steamship Corporation	449.1	57.2	22.6	Baltimore	Cruz Grande	Ballast		7,808	5,139
Orcoma	13	15.36	14	4.05	14	10.34	14	13.22	British	Pacific Steam Navigation Co	528.9	62.0	23.3	Liverpool	Valparaiso	General	2,412	12,414	8,302
Elisha Walker [1]	13	14.20	14	5.25	14	13.19	14	14.25	American	Pan-American Petroleum Co	429.3	59.2	20.6	New York	San Pedro	Ballast		7,978	5,971
Montrolite [1]	13	14.48	14	5.50	14	13.37	14	14.40	British	Imperial Oil Co	421.5	57.0	20.0	Baton Rouge	Talara	Ballast		7,378	4,752
Agwihavre [1]	13	15.34	14	7.05	14	14.52	14	15.50	American	Atlantic Gulf & W. I. S. S. Co	480.5	66.0	20.6	Baltimore	San Pedro	Ballast		9,394	6,305
President Polk	14	2.10	14	7.30	14	15.34	14	20.15	American	Dollar Line	502.0	62.0	23.0	New York	San Francisco	General	2,089	12,031	8,443
Texan	14	6.33	14	8.45	14	16.31	14	19.58	American	American-Hawaiian Line	471.0	57.2	21.0	New York	Los Angeles	General	6,281	9,154	6,903
Sucubaco	14	5.48	14	9.37	14	18.38	14	19.40	American	Transmarine Corporation	324.0	46.0	22.0	Newark	Los Angeles	General	4,000	3,984	2,612
E. A. Morse	14	9.15	14	10.20	14	19.24	15	1.37	American	Barber Line (S. B.)	402.0	53.2	27.0	Philadelphia	Hankow	General	7,849	6,570	4,796
Newport	12	21.20	14	11.15	14	20.11	14	21.24	American	Pacific Mail Steamship Co	326.0	38.0	14.7	Cristobal	Champerico	Ballast		3,173	2,163
Arcs	14	5.48	14	11.58	14	20.16	15	19.58	Dutch	Royal Netherlands W. I. Mail Co	340.0	48.0	17.6	Antwerp	Valparaiso	General	3,338	4,385	3,195
Chagres [10]	13		14		14	11.57			American	American Banana Corporation				Cristobal	Gatun Lake	Unknown		2	2
Hagood [1]	14	14.48	15	5.55	15	12.58	15	14.10	American	Cities Service Corporation	435.6	56.2	18.0	Boston	San Pedro	Ballast		7,426	5,094
Seekonk [9]	15	1.00	15	6.25	15	14.05	15	15.08	American	William Cramp & Sons	390.0	54.0	20.6	Baltimore	Seattle	General	4,545	6,162	4,417
Cape Cod [1]	15	1.12	15	7.23	15	15.04	15	16.15	American	Cape Steamship Co	425.0	57.0	17.0	New York	San Pedro	Ballast		7,218	5,184
Cecil County [1]	15	2.25	15	8.25	15	15.07	15	19.25	American	Walker & Daly (S. B.)	431.0	59.2	16.0	New York	Los Angeles	Ballast		8,097	5,330

[1] Tanker. [9] Motor ship. [10] Launch.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Sunoil [1]	8	15.00	9	6.22	9	18.25	9	18.25	American	Sun Oil Co	430.0	58.2	28.0	San Pedro	Marcus Hook	Crude oil	10,997	7,459	5,209
Dorothy Luckenbach	8	24.00	9	7.26	9	19.10	9	19.10	American	Luckenbach Line	449.0	60.0	29.0	Portland	New York	Lumber, general	8,430	9,294	6,861
Fred W. Weller [1]	9	3.30	9	8.15	9	20.15	9	22.20	American	Standard Oil Co. of N. J.	500.0	68.0	29.6	San Pedro	New York	Crude oil	15,500	10,928	7,710
Cape May	9	8.00	9	9.39	9	21.00	9	22.30	American	U. S. and Australia Line	415.0	53.0	18.0	Sydney	New York	General	1,172	7,072	4,944
Pal-O-Mine [11]			9	7.05	9	13.00			American	Percy Calthust				Balboa	Gatun Lake			1	1
Scopas [1]	10	4.00	10	7.33	10	18.20	10	21.45	Dutch	Anglo-Saxon Petroleum Co	427.0	53.1	24.0	San Pedro	Lands End [12]	Gasoline	7,300	6,296	4,395
Vistula [1]	10	4.00	10	7.57	10	18.50	10	18.50	Danzig	Baltic American Petroleum Co	498.0	64.0	28.4	San Pedro	Halifax	Crude oil	13,642	10,604	8,167
Albionstar	10	8.00	10	9.46	10	19.46	10	19.46	British	Blue Star Line	460.0	38.5	28.0	Tacoma	London	General	6,080	8,317	5,531
San Teodoro [1]	10	7.00	10	12.11	10	20.38	10	20.38	British	Eagle Oil Transport Co	412.0	53.4	24.6	San Pedro	London	Gasoline	7,100	6,006	4,200
Steelore	10	11.52	10	15.28	11	18.47	11	18.47	American	Ore Steamship Corporation	550.3	72.2	33.1	Cruz Grande	New York	Iron ore	20,000	15,551	4,297
Jurel [11]			10	6.37	11	9.57			American	Fred Whaler	26.3	8.0		Balboa	Gatun Lake			9	4
Wabash	10	17.28	11	6.19	11	17.55	11	17.55	American	N. Atl. & Western S. S. Co	381.0	49.9	24.6	Portland, Oreg	Portland, Me.	Lumber, general	4,530	5,825	4,152
Matinicock [1]	11	7.15	11	8.23	11	20.15	11	20.15	American	Standard Oil Co. of N. J.	459.1	60.0	25.0	Los Angeles	New York	Crude petroleum	10,240	8,181	5,897
Finland	11	15.40	12	6.21	12	16.05	12	17.00	American	Panama-Pacific Line	560.0	60.2	24.6	San Francisco	New York	General	4,000	13,559	9,016
Minnesotan	11	8.46	12	6.46	12	17.30	12	17.30	American	American-Hawaiian Line	407.7	53.7	24.4	Seattle	Boston	General	5,588	7,150	4,913
Maricos H. Whittier [1]	11	23.30	12	7.26	12	18.24	12	18.45	American	Associated Oil Co	435.6	56.2	28.6	San Pedro	Boston	Crude oil	9,000	7,426	5,128
Essequibo	12	6.00	12	8.08	12	16.40	13	2.00	British	Pacific Steam Navigation Co	460.0	67.6	26.6	Valparaiso	New York	([13])	3,249	9,099	6,117
Trimountain [1]	12	1.00	12	8.50	12	19.15	12	19.15	American	McAllister Brothers	416.9	56.2	25.0	San Pedro	Philadelphia	Crude oil	8,700	6,728	4,627
Robin Goodfellow	12	5.00	12	9.17	12	20.10	12	20.10	American	Seas Shipping Co	424.8	55.2	24.6	Vancouver	Boston	General	7,500	7,473	5,536
Newport	12	8.50	12	10.16	12	21.20	14	11.15	American	Pacific Mail Steamship Co	326.0	38.2	20.3	Corinto	Cristobal [13]	General	2,030	3,173	2,163

[1] Tanker. [11] Launch. [12] For orders. [13] Nitrate, copper, wool, fruit, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Deroche [1]	11	19.30	12	13.21	12	21.52	12	21.52	American	Union Oil Co. of California	435.0	56.0	27.0	Los Angeles	Bayonne, N. J.	Crude oil	9,000	7,452	5,199
Hugoton [1]	13	2.30	13	7.19	13	16.10	13	19.15	American	C. D. Mallory & Co	434.8	56.2	27.8	San Pedro	Philadelphia	Crude oil	10,393	7,424	5,175
Afghanistan	13	6.15	13	8.15	13	18.05	13	19.30	British	Common Brothers	386.0	53.0	24.6	Vancouver	Antwerp	Wheat	7,821	5,662	4,289
Cambrai [14]	11	23.00	13	9.17	13	16.36	13	16.36	American	U. S. Army	448.0	58.0	24.6	San Francisco	New York	Army supplies	469		
San Lorenzo	13	8.00	13	10.20	13	19.10	13	19.10	British	Eagle Oil Transport Co	527.4	66.6	29.6	San Pedro	Tampico	Crude oil	15,884	12,116	9,023
David McKelvy [1]	12	23.00	13	11.19	13	20.00	13	20.00	American	Tidewater Oil Co	430.0	59.0	27.0	Los Angeles	New York	Crude oil	11,000	7,629	5,393
Agwimex [1]	13	11.21	13	12.44	13	21.05	13	23.50	American	International Shipping Co	480.5	66.0	29.3	San Pedro	Baltimore	Crude oil	13,500	9,394	5,306
Halo [1]	13	15.15	14	6.24	14	16.25	14	16.25	American	Cities Service Transportation Co	435.0	56.0	29.0	San Pedro	Boston	Crude oil	10,000	7,434	5,093
Lena Luckenbach	13	19.30	14	7.13	14	17.05	14	17.05	American	Luckenbach Line	425.0	53.8	22.0	Seattle	New Orleans	General	3,000	7,217	5,295
Welsh City	14	7.00	14	8.38	14	18.25	14	23.10	British	St. Just Steamship Co	411.7	54.5	28.0	Vancouver	Messina, Italy	Wheat	8,880	6,957	5,133
Zeilin [15]	13	17.05	14	12.25	14	18.55	14	18.55	American	U. S. Navy	280.0	35.0	12.0	San Diego	Culebra Island				
Sloat [16]	13	17.05	14	12.42	14	19.02	14	18.55	American	U. S. Navy	280.0	35.0	12.0	San Diego	Culebra Island				
Standard [1]	14	13.00	14	13.49	14	22.25	14	22.25	American	Standard Oil Co. of N. J.	523.8	68.6	31.0	San Pedro	New York	Crude oil	17,000	12,171	8,782
Pelican [17]			14	12.30	14	19.02			American	H. E. Williams				Balboa	Chagres River				
Tremeadow	14	17.20	15	6.25	15	13.30	15	14.35	British	Hain Steamship Co	400.1	52.2	15.9	Melbourne	New York	Wool, general	1,800	5,797	4,090
Peterton	14	24.00	15	7.12	15	15.25	15	16.40	British	R. Chapman & Son	413.0	52.3	23.10	Vancouver	Colon [18]	Wheat	7,321	5,885	4,144
Blue Triangle	15	8.36	15	9.31	15	17.30	15	17.30	American	N. Atlantic & Western S. S. Co.	390.0	54.2	24.0	Seattle	Boston	Lumber, general	5,312	6,209	4,317
London Importer	14	23.30	15	12.38	15	19.57	15	19.57	British	Furness, Withy & Co	473.0	58.0	29.5	Vancouver	London	General	9,490	8,600	6,099
Walter A. Luckenbach	15	12.57	15	14.11	15	21.50	15	21.45	American	Luckenbach Line	446.5	56.1	28.6	Portland	Boston	General	7,205	8,785	6,567

[1] Tanker. [14] Army transport. [15] Destroyer No. 313. [16] Destroyer No. 316. [17] Launch. [18] For orders. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
March 9	Megantic	White Star Line	New York via wayports.
March 9	Cartago	United Fruit Co	New Orleans via Habana.
March 9	La Navarre	French Line	St. Nazaire via wayports.
March 10	La Isla [19]	L. J. Vacarro & Bros	San Blas coast.
March 11	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.
March 12	Abangarez	United Fruit Co	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
March 9	Panama	Panama Railroad Line	New York via Haiti.
March 9	Yuma	Mexican-American Fruit Co	Frontera.
March 9	Cartago	United Fruit Co	Bocas del Toro.
March 11	La Navarre	French Line	St. Nazaire via wayports.
March 11	Megantic	White Star Line	New York via wayports.
March 12	Cartago	United Fruit Co	New Orleans via Habana

[19] Motor schooner.

* Other than ships passing through the Canal.

(Continued on page 458, column 2.)

Removal of Baffle Piers at Gatun Spillway.

In any major operation of the Gatun spillway it is necessary to consider the possible effects of high water in the spillway channel on the hydroelectric plant, which is adjacent to the east side of the channel and discharges into it. During the floods of October, 1923, 11 of the 14 spillway gates were opened for a period of several hours, and the necessity for the use of the remaining 3 gates was averted only by spilling water through the side wall lock culverts at Gatun and Pedro Miguel. This expedient is always available in emergencies, but it involves a suspension of traffic through the Canal.

It appeared that the water level at the hydroelectric plant might be reduced by removing certain of the 23 baffle piers, built in two rows at the foot of the spillway dam which diverted the current in the direction of the plant. The removal of pier 15 of the inner row, and 16 of the outer, was accordingly authorized, and the work has recently been completed by the Division of Municipal Engineering. These piers normally receive the discharge of spillway gate No. 10, which is the third gate to the east of the center line of the spillway. With these piers removed, it is expected that the water passing over the dam with all gates open will tend to bank up against the west side of the channel, and that the elevation on the opposite side at the hydroelectric plant will be reduced.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 15, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Panama	Panama Railroad Steamship Line		March 9		1,812
Dinteldijk	Holland-American Line		March 9		157
Loreta	Pacific Steam Navigation Co		March 9		1½
Oropesa	Pacific Steam Navigation Co		March 9		4
Cartago	United Fruit Co	March 9	March 9	248	216
Albaro	La Veloce Line		March 10		1,323
Ebro	Pacific Steam Navigation Co	March 9	March 10	392	11½
La Navarre	French Line	March 9	March 11	41½	292
Mantaro	Peruvian Line	March 10	March 11	(1)	308
Oranje Nassau	Royal Netherlands W. I. Mail	March 11	March 12	56	½
Santa Malta	Pacific Mail Steamship Co.	March 11	March 11	171	1
Camden	United Fruit Co	March 12	March 13	4,098	(2)
City of Para	Pacific Mail Steamship Line		March 12		1,128
Cartago	United Fruit Co	March 12	March 12	100	14
Abangarez	United Fruit Co	March 12	March 13	1,076	26
Sixaola	United Fruit Co	March 12	March 13	152	176
Newport	Pacific Mail Steamship Co	March 12	March 14	2,030	(3)
Essequibo	Pacific Steam Navigation Co	March 12	March 13	211	423
Orcoma	Pacific Steam Navigation Co	March 13	March 14	38	(3)
Metapan	United Fruit Co	March 13	March 13	33	63
Pastores	United Fruit Co	March 14	March 14	79	55
Ares	Royal Netherlands W. I. Mail	March 14	March 14	400	97
Antillian	Leyland Line	March 14		580	
La Playa	United Fruit Co	March 15	March 15	199	310
Oranje Nassau	Royal Netherlands W. I. Mail Co.	March 15	March 15	23	2,228
Cristobal	Panama Railroad Steamship Line	March 15		3,581	

[1] No cargo discharged. [2] No cargo laded. [3] One package.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending March 15, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
T. J. Williams	Standard Oil Co	March 8	March 10	7,963	
Nitokris	Kosmos Line	March 9	March 9		114
Cambrai	U. S. Government	March 12	March 14	267	96
City of Para	Pacific Mail Steamship Co	March 12	March 12		17
Ares	Royal Netherlands W. I. Mail Co.	March 14	March 14	366	

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Campany (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 456.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 12	Camden	United Fruit Co.	Houston, Tex.	March 12	Oranje Nassau	Royal Netherlands W. I. Mail	Port Limon.
March 12	Cartago	United Fruit Co.	Bocas del Toro.	March 12	Senator	Ore Fruit Co.	New Orleans via Bluefields.
March 12	Sixaola	United Fruit Co.	New York via Kingston.	March 12	Arabia [20]	San Blas Development Co.	Colon.
March 12	Senator	Ore Fruit Co.	Bluefields.	March 13	Ulysses [21]	Panama Railroad Steamship Line	Norfolk.
March 12	Arabia [20]	San Blas Development Co.	Colon.	March 13	Sixaola	United Fruit Co.	Colombian ports.
March 13	Metapan	United Fruit Co.	Colombian ports.	March 13	Metapan	United Fruit Co.	New York via Kingston.
March 13	Pastores	United Fruit Co.	New York via wayports.	March 13	Abangarez	United Fruit Co.	New Orleans via wayports.
March 14	Antillian	Leyland Line	Liverpool via West Indies.	March 13	Camden	United Fruit Co.	Santa Maria, Colombia.
March 15	Oranje Nassau	Royal Netherlands W. I. Mail Co.	Port Limon.	March 14	Pastores	United Fruit Co.	Port Limon.
March 15	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	March 15	La Playa	United Fruit Co.	Boston.
March 15	La Playa	United Fruit Co.	Port Limon.				

[20] Motor schooner. [21] Collier, towing barge *Darien*.

PORT OF BALBOA.

None				March 10	Montelle [1]	Union Oil Co.	Port San Luis.

[1] Tanker.

* Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., March 26, 1924. No. 33.

Improved Facilities at Balboa for Oil Bunkering.

To provide additional facilities for the bunkering of oil-burning vessels at Balboa, various extensions and improvements have been made in the pipe lines connecting the docks with the Panama Canal oil-handling plant and the various government and private storage tanks. A new line has been built to Dock 7, the unloading side of the Balboa coaling plant, where there are berths for two vessels, and this has been connected with the existing lines to Dock 6, the reloading side of the coaling plant, and Dock 4, the old Panama Railroad pier.

Before these improvements it was possible to berth 3 ships at these docks and deliver oil to 2 of them. Now 5 ships can be berthed and oil delivered simultaneously to 3.

The so-called Oil Dock, south of Dock 4, is reserved primarily for discharging oil from tankers into storage, although it can also be used as a bunkering berth.

At the Balboa pumping plant there are now two pumps rated at 2,500 barrels, and one rated at 1,400 barrels an hour. The smaller pump is being replaced by a pump of the same capacity as the two larger ones. Two new water tube boilers are being installed, rated at 418 horsepower each, to replace the boilers now in use.

The Balboa end of the oil pipe line to Paraiso, which supplies the Dredging Division and the auxiliary steam power plant at Miraflores, has been relocated and straightened out, with a saving of 2,800 feet.

These improvements are estimated to cost $52,120.00. They were started in December, 1923. Work on the new pipe lines has now been completed, except for the installation of a few valves, and it is expected that the new pump and boilers will have been installed by July.

Large Shipment of Automobiles.

The British steamship *Zinal*, owned and operated by Turner, Brightman & Co., and chartered by the Commonwealth & Dominion Line, made her first transit of the Panama Canal, on March 10, en route from New York to Australia, carrying 5,440 measured tons of 40 cubic feet. Four thousand measured tons were automobiles from New York, the remainder being 640 tons of asphalt, and 800 tons of general cargo.

The shipping measurement of automobiles ranges from 275 cubic feet per machine upward. At 400 cubic feet each, the shipment would be 400 machines.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

CANAL WORK IN FEBRUARY.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of February, 1924:

BALBOA HEIGHTS, C. Z., March 15, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of February, 1924:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 418, averaging 14.41 per day. In addition to commercial transits, there were 9 transits of small launches on which tolls were paid but which are not taken up in the commercial traffic, and 22 transits of Government vessels on which no tolls were paid, making the total transits for the month 449. The daily average of transits of all kinds was 15.48.

Tolls on the 418 commercial vessels aggregated $1,964,155.59, and on the 9 launches $26.45, making the total tolls for the month $1,964,182.04. This is not quite up to the $2,000,000 mark made by every month of the fiscal year beginning July 1, 1923, except September and October, but would have been had the month been of the ordinary length, 30 or 31 days.

The average daily collection of tolls on commercial traffic was $67,729.50, and on all traffic $67,730.42.

The total number of craft of all kinds transiting the Canal during the month of February, 1924, as compared with February, 1923, and February, 1922, is shown in the following tabulation:

	February, 1924.	February, 1923.	February, 1922.
Commercial vessels	418	326	212
Noncommercial vessels, Army and Navy	22	94	12
Launches, under 20 tons measurement	9	4	5
Vessels transiting Canal for repairs	.....	1	.....
Total vessels transiting Canal	449	425	229

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	North-bound.	South-bound.	Total.
Gatun	20	17	37
Pedro Miguel	27	36	63
Miraflores	27	36	63

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1924, to the end of February, 1924, as compared with the same months in the previous year:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922-3	1923-4	1922-3.	1923-4.	1922-3	1923-4.	1922-3.	1923-4.
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
December	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January	352	476	1,610,692	2,409,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
February	326	418	1,529,547	2,108,879	1,563,278	2,243,616	1,423,954.21	1,964,155.59
Totals	2,318	3,604	10,445,588	17,945,919	11,078,273	18,186,681	9,931,283.14	16,641,477.31

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the U. S. Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 8 months of the current fiscal year, compared with the same period for the preceding fiscal year, has been 55.48 per cent in number of vessels, 71.8 per cent in Panama Canal net tonnage, 64.16 in tons of cargo carried, and 67.56 per cent in tolls.

Following is a summary of the commercial traffic in February, 1924, as compared with the corresponding month in 1923 and 1922, and with the average per month in the calendar year 1923:

	February, 1924.	February, 1923.	February, 1922.	Average per month for calendar year 1923.
Number of vessels	418	326	212	420
U. S. equivalent tonnage	1,680,768	1,237,806	710,548	1,665,195
Panama Canal net tonnage	2,108,879	1,529,547	886,535	2,061,453
Registered gross tonnage	2,687,166	1,943,694	1,105,036	2,638,175
Registered net tonnage	1,681,466	1,231,729	700,126	1,660,964
Tolls	$1,964,155.59	$1,423,954.21	$866,266.18	$1,913,903.18
Tons of cargo carried	2,243,616	1,563,278	838,074	2,096,712

The average daily number of transits, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for calendar year 1923.
	February, 1924.	February, 1923.	February, 1922.	
Number of transits	14.41	11.64	7.57	13.8
Panama Canal net tonnage	72,720	54,627	31,662	67,774
Tolls	$67,729.50	$50,855.51	$30,938.08	$62,922.84
Tons of cargo carried	77,366	55,831	29,931	68,933

From the foregoing it will be seen that the average daily traffic in February, 1924, as compared with February, 1923, increased as follows: Number of commercial transits, 23.8 per cent; Panama Canal net tonnage, 33.1 per cent; tolls, 33.2 per cent; and tons of cargo, 38.6 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls and cargo per vessel transiting the Canal during the month of February, 1924, as compared with February, 1923, and February, 1922, are shown in the following tabulation:

	Average per vessel.		
	February, 1924.	February, 1923.	February, 1922.
United States equivalent net tonnage	4,021	3,797	3,351
Panama Canal net tonnage	5,045	4,692	4,182
Registered gross tonnage	6,429	5,962	5,264
Registered net tonnage	4,023	3,778	3,302
Tolls	$4,698.94	$4,367.96	$4,086.16
Tons of cargo (including vessels in ballast)	5,367	4,825	3,953
Tons of cargo (laden vessels only)	6,599	6,012	4,411

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement giving the summary of the intercoastal traffic through the Canal, for the month of February for the past 4 years, indicates the great increase of traffic over this route:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
February, 1921.	15	80,940	67,302	17	66,043	6,845	32	146,983	135,647
February, 1922.	25	117,512	94,548	19	89,862	84,330	44	207,374	178,878
February, 1923.	73	387,649	238,622	50	270,279	423,958	123	657,928	662,580
February, 1924.	80	449,263	210,388	100	571,580	916,249	180	1,020,843	1,126,637

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-one vessels of the United States Shipping Board transited the Canal during the month of February, 1924; of these, 15 were employed in the United States intercoastal trade. Of the 21 vessels, 12 were tankships and 9 were general cargo carriers. One of the general cargo carriers was a motor ship.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels through the Canal during the month of February, for the past 3 years:

Month.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
February, 1922.	8	39,168	49,424	6	32,909	21,119	14	72,077	70,543
February, 1923.	12	59,803	38,192	10	56,572	70,928	22	116,375	109,120
February, 1924.	13	67,528	43,600	8	40,506	64,837	21	108,034	108,437

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of February, 1924, by principal geographical areas as compared with February, 1923, and February, 1922; the figures represent the net tonnage as determined by The Panama Canal rules of measurement:

Areas.	February, 1924.	February, 1923.	February, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	722,326	583,295	273,996
Europe (including British Isles)	311,903	211,093	146,572
East coast of Mexico	18,530	14,868	30,477
Cristobal, C. Z.	11,832	15,864	19,061
East coast of South America	9,213	6,065	4,796
Miscellaneous	26,110	9,191	13,103
Totals	1,699,914	840,376	488,005
Destination, Pacific-bound tonnage.			
West coast of United States	573,633	474,078	151,388
West coast of South America	198,599	196,200	108,098
Australasia	121,898	85,729	94,271
Far East	114,492	63,713	107,197
Canada, west coast	86,086	18,045	20,322
West coast of Mexico and Central America	5,206	2,611	6,729
Totals	1,099,914	840,376	488,005
Origin, Atlantic-bound tonnage.			
West coast of United States	649,466	331,613	142,693
West coast of South America	209,246	207,617	111,400
Australasia	47,068	41,619	42,950
Far East	4,833	20,137	21,594
Canada, west coast	89,611	78,634	61,440
West coast of Mexico and Central America	8,741	9,551	18,453
Totals	1,008,965	689,171	398,530
Destination, Atlantic-bound tonnage.			
East coast of United States	714,928	437,551	172,900
Europe (including British Isles)	266,092	195,073	163,919
East coast of Mexico	4,723	4,885	33,863
Cristobal, C. Z.	9,711	14,007	18,242
East coast of South America	4,873	8,443	5,536
Miscellaneous	8,638	29,212	4,070
Totals	1,008,965	689,171	398,530

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of February, 1924, was $1,964,155.59. Had the net tonnage as determined by The Panama Canal rules of measurement been used exclusively, this revenue would have been $2,335,422.24, a difference of $371,266.65. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$54,077.51	$39,211.80	$93,289.31
Chilean	1,257.65	2,513.65	3,771.30
Danish	510.45	2,161.95	2,672.40
Danzig	1,698.25	.....	1,698.25
Dutch	4,819.55	9,194.75	14,014.30
French	2,951.85	779.00	3,730.85
German	5,110.50	9,011.20	14,121.70
Italian	1,595.10	686.85	2,281.95
Japanese	5,335.17	1,660.10	6,995.27
Norwegian	4,375.35	1,654.15	6,029.50
Panaman	[1] .78	.....	[1] .78
Peruvian	4,666 65	3,017.25	7,683.90
Spanish	1,471.60	2,513.90	3,985.50
Swedish	1,884.05	2,344.70	4.228.75
United States	69,964.30	136,800.15	206,764.45
Totals	159,717.20	211,549.45	371,266.65

[1] Indicates gain.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$48,672.41	$124,298.15	$172,970.56
United States foreign trade	20,851.84	11,973.90	32,825.74
United States to Canal Zone trade	440.05	528.10	968.15
Totals	69,964.30	136,800.15	206,764.45

Of the additional $371,266.65 that would have been assessed by using exclusively Panama Canal rules of measurement, $11,593.20 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in February, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, February, 1924.
British	.97	1.43	1.18
Chilean	.65	1.03	.90
Danish	1.51	1.92	1.75
Dutch	.44	1.54	1.14
French	.44	1.66	.63
German	.57	1.55	1.13
Italian	.40	1.62	1.14
Japanese	1.34	1.70	1.44
Norwegian	1.34	1.94	1.57
Peruvian	.21	1.16	.70
Spanish	.06	1.21	.85
Swedish	1.03	1.65	1.39
United States	1.11	1.64	1.48
Average ratio, February, 1924	.99	1.58	1.34
Average ratio, February, 1923	1.11	1.47	1.31
Average ratio, February, 1922	1.00	1.11	1.05

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.47	1.60	1.10
United States and South America	.43	1.85	1.20
United States and Europe	.54	1.55	.92
United States and Far East	1.42	1.27	1.40
Europe and South America	.52	1.48	1.01
Europe and Canada	.21	1.72	1.05
Cristobal and South America	.19	.89	.50
United States and Australasia	.99	.44	.90
United States and Canada	.79	1.27	.87

COMMODITY STATISTICS.

Cargo passing through the Canal during the month of February, 1924, totaled 2,243,616 long tons. These figures do not quite equal the high figures of December, 1923, and January, 1924, due to the short month and to a falling off of mineral oil shipments from the west coast of the United States. Nearly every other commodity than mineral oils shows appreciable increases, as may be seen from the following table.

Total cargo tons through the Canal during the month were approximately 43.5 per cent greater than in February, 1923. There were 679,815 tons from the Atlantic to the Pacific as against 563,439 tons in February, 1923; and 1,563,801 tons from the Pacific to the Atlantic as against 999,839 tons in February, 1923.

Principal commodities from the Atlantic to the Pacific were manufactured goods, mineral oils, crude and refined, various metals, coal and coke, and cement in the order named.

From the Pacific to the Atlantic, the principal commodities were mineral oils, crude and refined, nitrates, wheat, lumber, and canned goods in the order named.

The following commodity statistics were compiled from cargo declarations submitted by masters of vessels at the time of transit and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	February, 1924.	February, 1923.	February, 1922.
Atlantic to Pacific.			
Ammonia	3,093	5,331	8,783
Automobiles	8,079	4,939	1,044
Canned goods	5,416	2,027	4,695
Cement	30,965	7,360	46,62
Chemicals	4,195	2,108	2,042
Coal and coke	31,455	24,100	32,545
Coffee	11,636	51	2,723
Cotton	2,765	8,732	18,218
Creosote	8,128	6,930	.....
Manufactured goods:			
Iron and steel	137,707	145,273	109,575
Machinery	12,736	8,964	7,920
Railroad material	23,090	8,410	7,473
Textiles	7,126	8,700	2,107
Other	8,568	12,537	642
Metals, various	49,579	25,122	12,238
Mineral oils:			
Crude petroleum	19,416	19,453	41,755
Lubricating	8,781	5,972	4,320
Refined	54,958	29,804	28,893
Phosphates	2,150	6,691	.....
Paper	3,647	7,781	.....
Silver sand	236	7,500	.....
Sugar	6,040	32	15,760
Sulphur	10,163	14,432	15,400
Tobacco	10,487	4,554	3,923
Other and general	219,399	196,636	118,107
Totals	679,815	563,439	442,825
Pacific to Atlantic.			
Barley	20,895	16,578	6,596
Borax	2,580	4,491	6,483
Beans	6,019	11,289	3,766
Canned goods	30,609	23,855	20,437
Coffee	12,588	8,371	9,484
Cold storage	20,754	10,242	17,201
Cotton	3,706	5,479	3,428
Fruit, dried	15,290	3,668	5,529
Lumber	114,494	147,948	64,002
Metals, various	29,642	31,080	14,659
Nitrates	190,852	183,344	27,022
Mineral oils:			
Crude petroleum	643,318	306,103	10,505
Lubricating	20,389	10,343	7,297
Refined	58,536	30,143	10
Ores, various	82,597	34,629	32,265
Sugar	27,079	15,612	3,624
Wheat	153,160	42,686	57,514
Wool	12,433	6,434	18,363
Other and general	118,860	107,544	87,064
Totals	1,563,801	999,839	395,249

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of February, 1924, was published in THE PANAMA CANAL RECORD for March 12, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of February, 1924, as compared with the same month in the years 1923 and 1922:

Route.	Atlantic to Pacific. Number of vessels.			Pacific to Atlantic. Number of vessels.		
	February, 1924.	February, 1923.	February, 1922.	February, 1924.	February, 1923.	February, 1922.
United States intercoastal	80	73	25	100	50	19
United States and South America	25	17	11	29	25	12
Europe and South America	17	22	10	18	17	11
United States and Far East	21	13	17	1	3	3
Europe and United States	20	13	14	11	8	9
Europe and Canada	12	1	2	18	9	6
Europe and Australasia	9	6	9	5	6	5
Mexico and South America	2	2	4	1	1	2
Cristobal and South America	4	7	12	3	7	10
United States and Canada	4	2	2	1	7	4
United States and Australasia	10	7	4	2	8	1
Miscellaneous	15	12	4	10	10	16
Totals	219	175	114	199	151	98
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	449,263	387,649	117,512	571,580	270,279	89,862
United States and South America	104,835	72,011	31,968	126,632	111,812	40,011
Europe and South America	75,066	160,519	39,657	77,901	66,164	46,101
United States and Far East	103,573	63,713	87,553	4,833	15,650	17,190
Europe and United States	99,120	60,465	21,827	61,287	44,799	41,867
Europe and Canada	66,237	7,551	11,076	82,234	45,147	33,689
Europe and Australasia	68,363	42,558	63,962	38,614	32,931	32,664
Mexico and South America	9,866	9,827	20,573	4,723	4,885	10,354
Cristobal and South America	6,031	9,599	15,278	4,863	8,494	14,312
United States and Canada	16,421	10,494	9,246	3,251	33,487	19,621
United States and Australasia	45,222	38,224	22,048	8,454	4,561	6,216
Miscellaneous	55,917	37,766	47,305	24,593	50,962	46,643
Totals	1,099,914	840,376	488,005	1,008,965	689,171	398,530
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	210,388	238,622	95,548	916,249	423,958	84,330
United States and South America	49,811	26,230	23,921	226,573	189,746	48,333
Europe and South America	38,913	31,052	24,366	115,485	95,590	57,139
United States and Far East	146,352	83,651	133,506	6,250	16,289	19,959
Europe and United States	53,453	56,856	6,700	94,879	68,155	61,122
Europe and Canada	14,062	2,916	9,453	141,770	66,336	49,181
Europe and Australasia	58,434	32,649	30,294	31,432	35,336	28,081
Mexico and South America	19,133	19,196	27,037	.....	.....	.....
Cristobal and South America	1,128	2,391	3,645	4,325	2,017	4,723
United States and Canada	13,091	17,392	13,050	4,139	45,642	16,529
United States and Australasia	44,848	48,124	25,535	3,710	1,735	9,200
Miscellaneous	30,292	4,360	49,770	18,989	64,035	16,652
Totals	679,815	563,439	442,825	1,563,801	999,839	395,249

LATIN-AMERICAN TRAFFIC.

As compared with January, 1924, this traffic shows decreases in all respects, due in part to the short month. The decreases as compared with January, 1924, are as follows: number of ships, 22; Panama Canal net tonnage, 83,195 tons; tolls, $83,831.84; tons of cargo carried, 151,668.

A comparison of February, 1924, with February, 1923, shows the following: number of ships, decrease of 16; Panama Canal net tonnage, an increase of 6,273 tons; tolls, an increase of $7,392.37; tons of cargo carried, an increase of 65,262, tons.

The principal commodities from Latin-American points were nitrates, iron ore, sugar, and copper in the order named. To Latin-American points the principal commodities were coal and coke, crude oil, various manufactured goods, and cement in the order named.

Nitrate shipments from South America were 190,852 tons, as compared with 272,998 tons in January, 1924, and 272,714 tons in December, 1923.

In the following tabulations are shown the tonnage, tolls and cargo of all vessels routed to or from Latin-America, segregated by nationality of vessels, together with the totals in each direction as compared with February in 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	20	63,023	74,273	101,328	62,759	$69,687.97	48,283
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	3,032
Danish	2	6,618	7,846	10,634	6,620	6,972.21	5,250
Danzig	1	6,403	8,085	8,966	5,107	8,003.75	.....
Dutch	3	6,893	10,199	11,015	6,867	8,616.25	6,481
German	5	17,310	22,210	28,128	17,509	21,637.50	12,594
Italian	2	5,802	7,373	10,052	5,718	7,252.50	2,985
Japanese	5	20,966	22,456	29,282	20,640	21,895.65	13,234
Norwegian	2	6,821	8,960	10,924	6,842	6,801.85	136
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,625
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	324
United States	13	41,106	49,462	67,356	41,599	42,259.25	29,492
Totals, February, 1924	59	186,266	228,822	305,025	188,316	207,268.93	123,436
Totals, February, 1923	69	141,729	218,620	279,292	175,746	185,906.09	83,229
Totals, February, 1922	46	105,066	130,801	173,971	107,759	126,473.90	107,459
Pacific to Atlantic.							
British	25	76,363	97,240	121,267	75,664	90,728.27	130,249
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	9,681
Danish	2	5,841	7,886	9,420	5,890	7,301 25	15,107
Dutch	4	15,510	21,497	31,248	18,851	19,387.50	34,796
German	7	18,336	26,359	28,895	17,304	22,920.00	40,238
Italian	3	10,796	11,545	15,315	9,419	13,167.15	18,650
Japanese	1	4,348	4,700	5,873	4,254	5,435.00	8,440
Norwegian	2	4,394	5,040	6,954	4,409	5,492.50	10,714
Peruvian	3	5,703	8,335	12,471	6,693	7,128.75	9,662
Spanish	1	2,960	3,729	4,640	2,721	3,700.00	432
United States	10	31,747	37,953	55,700	31,778	39,478.20	87,403
Totals, February, 1924	60	182,989	233,661	306,382	184,845	223,477.37	365,372
Totals, February, 1923	66	192,511	237,590	307,323	191,428	237,447.84	340,317
Totals, February, 1922	48	121,170	148,947	198,863	123,792	136,845.45	117,747

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up approximately 52.6 per cent of the total transits of the Canal during February, 1924, comprised approximately 56.8 per cent of the Panama Canal net tonnage, and carried approximately 60 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in February, 1924, classified according to nationality of vessels, by directions, and the combined traffic in both directions, together with the totals for February in 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.		
Atlantic to Pacific.							
British	62	236,063	303,186	379,458	237,258	$274,048.57	221,911
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	3,032
Danish	3	8,184	9,634	13,015	8,100	8,929.71	7,878
Danzig	3	17,437	23,944	26,907	15,399	19,422.23	.....
Dutch	6	21,088	27,277	33,819	20,881	22,624.21	7,188
French	6	24,039	27,255	36,738	22,519	29,754.15	12,046
German	5	17,310	22,210	28,128	17,509	21,637.50	12,594
Italian	2	5,802	7,373	10,052	5,718	7,252.50	2,985
Japanese	13	53,798	60,104	77,258	52,946	62,459.55	68,550
Norwegian	7	26,021	32,367	40,680	25,826	27,301.53	23,183
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,625
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	324

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.—Continued.							
Swedish	1	2,303	3,969	3,802	2,839	$2,878.75	4,080
United States	105	450,217	564,637	715,350	451,280	473,018.90	314,419
Totals, February, 1924	219	873,586	1,099,914	1,392,547	874,930	963,469.60	679,815
Totals, February, 1923	175	680,455	849,376	1,070,890	680,637	733,122.37	563,439
Totals, February, 1922	114	394,817	488,005	605,523	384,957	482,933.41	442,825
Pacific to Atlantic.							
British	46	172,843	214,103	270,625	169,418	211,078.92	285,514
Chilean	2	6,991	9,377	14,599	7,862	8,738.75	9,681
Danish	2	5,841	7,886	9,420	5,890	7,301.25	15,107
Dutch	5	20,057	28,553	38,558	23,346	25,071.25	44,071
French	1	4,196	5,020	6,798	4,268	5,245.00	8,364
German	8	20,704	29,076	32,683	19,675	25,880.00	45,068
Italian	3	10,796	11,545	15,315	9,419	13,167.15	18,650
Japanese	6	25,785	27,991	35,881	25,385	31,929.10	46,356
Norwegian	4	13,324	15,718	21,069	13,326	14,782.97	20,714
Peruvian	3	5,703	8,335	12,471	6,693	7,128.75	9,662
Spanish	3	9,794	12,297	16,112	9,582	12,242.50	14,892
Swedish	1	3,386	5,456	5,558	4,246	4,232.50	9,025
United States	115	507,762	633,608	815,530	507,426	633,887.85	1,036,697
Totals, February, 1924	199	807,182	1,008,965	1,294,619	806,536	1,000,685.99	1,563,801
Totals, February, 1923	151	557,351	689,171	872,804	551,092	690,831.84	999,839
Totals, February, 1922	98	315,731	398,530	499,713	315,169	383,332.77	395,249
Combined traffic.							
British	108	408,906	517,289	650,083	406,676	485,127.49	507,425
Chilean	3	10,470	14,049	21,909	11,838	13,087.50	12,713
Danish	5	14,025	17,520	22,435	13,990	16,230.96	22,985
Danzig	3	17,437	23,944	26,907	15,399	19,422.23	.....
Dutch	11	41,145	55,830	72,377	44,227	47,695.46	51,259
French	7	28,235	32,275	43,536	26,787	34,999.15	20,410
German	13	38,014	51,286	60,811	37,184	47,517.50	57,662
Italian	5	16,598	18,918	25,367	15,137	20,419.65	21 635
Japanese	19	79,583	88,095	113,139	78,331	91,388 65	114,906
Norwegian	11	39,345	48,085	61,749	39,152	42,084.50	43,897
Panaman	1	26	26	.....	.....	19.50	.....
Peruvian	6	9,492	16,077	24,923	12,970	11,752.50	11,287
Spanish	4	13,914	17,815	23,690	13,984	17,392.50	15,216
Swedish	2	5,689	9,425	9,360	7,085	7,111 25	13,105
United States	220	957,979	1,198,245	1,530,880	958,706	1,106,906.75	1,351,116
Totals, February, 1924	418	1,680,768	2,108,879	2,687,166	1,681,466	1,964,155.59	2,243,616
Totals, February, 1923	326	1,237,806	1,529,547	1,943,694	1,231,729	1,423,954.21	1,563,278
Totals, February, 1922	212	710,548	886,535	1,105,036	700,126	866,266.18	838,074

VESSELS WITHOUT CARGO.

The number of ships transiting the Canal in ballast is shown in the following tabulation, the vessels being grouped according to nationality:

Class and nationality.	Atlantic to Pacific. No. of ships.	Panama Canal net tonnage.	Tolls.	Pacific to Atlantic. No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
British	6	35,182	$25,488.00	3	14,066	$10,127.52
Danzig [1]	3	23,944	19,422.23	.....	.....	.....
Dutch	1	4,395	3,164.40	.....	.....	.....
Norwegian	1	5,520	3,974.40	1	5,051	3,636.72
United States	42	259,064	187,176.15	.....	.....	.....
General cargo ships:						
British	9	39,367	30,066.67	.....	.....	.....
Danish	1	4,418	3,180.96	.....	.....	.....
Dutch	1	6,623	4,768.56	.....	.....	.....
Japanese	2	9,046	6,620.55	.....	.....	.....
Norwegian	2	9,529	6,860.88	.....	.....	.....
Panaman	1	26	19.50	.....	.....	.....
United States	5	22,741	16,416.75	.....	.....	.....
Totals	74	419,855	307,159.05	4	19,117	13,764.24

[1] Includes 1 that paid tolls at laden rate on account of excess bunker fuel.

CLASSIFICATION OF VESSELS.

A further classification of commercial traffic through the Canal during the month of February, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
Laden	3	15,075	$16,889.55	60	371,218	$382,969.40
Ballast	53	328,105	239,225.18	4	19,117	13,764.24
General cargo ships:						
Laden	142	664,984	639,421.00	135	618,630	603,952.35
Ballast	21	91,750	67,933.87	.....	.....	.....
Totals	219	1,099,914	963,469.60	199	1,008,965	1,000,685.99
Steamers	207	1,047,317	914,899.12	191	983,080	976,550.99
Motor ships	10	52,508	48,472.23	6	25,506	23,697.50
Motor schooners	2	89	98.25	2	379	437.50
Totals	219	1,099,914	963,469.60	199	1,008,965	1,000,685.99

Of the 398 steam vessels, 268 were oil burners, 122 coal burners, and 8 burned either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of February, 1924. If tolls had been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Battleship	.....	.....	.....	1	[1] 32,300	$16,150.00
Destroyers	2	[1] 2,430	$1,215.00	.....	.....	.....
Launch	1	[1] 10	5.00	.....	.....	.....
Subchaser	1	[1] 77	38.50	.....	.....	.....
Tankships	1	[1] 14,500	7,250.00	2	[1] 29,000	14,500.00
Transports	1	[2] 4,122	5,152.50	2	[2] 7,361	9,201.25
Tugs	2	[1] 2,000	1,000.00	4	[1] 4,000	2,000.00
Cruiser	.....	.....	.....	1	[1] 9,074	4,537.00
U. S. Army vessels:						
Mine planters	1	[1] 1,208	604.00	1	[1] 1,208	604.00
Transports	1	[2] 5,764	7,205.00	1	[2] 3,908	4,885.00
Totals	10	30,111	22,470.00	12	86,851	51,877.25

[1] Indicates displacement tonnage. [2] Indicates registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls, carried cargo as follows:

	Tons.
Atlantic to Pacific	11,273
Pacific to Atlantic	1,913
Total	13,186

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	6	21	$21.20
Pacific to Atlantic	3	6	5.25
Totals	9	27	26.45

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of February, 1924, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons..	47,238	45,422	92,660
Local cargo shipped....tons..	2,154	344	2,498
Transit cargo arriving....tons..	2,221,630	2,268,906	4,490,536
Transit cargo clearing....tons..	2,262,457	2,254,494	4,516,951
Cargo received for transshipment....tons..	27,648	193	27,841
Cargo transshipped....tons..	23,977	451	24,428
Vessels supplied with bunker coal:			
Army and Navy vessels....	2	1	3
Commercial, other than Panama Railroad....	56	2	58
Total vessels supplied with coal....	58	3	61
Coal supplied to above vessels:			
Army and Navy vessels....tons..	347	21	368
Commercial, other than Panama Railroad....tons..	19,196	2	19,198
Total coal supplied to vessels....tons..	19,543	23	19,566
Coal issues, miscellaneous:			
Panama Canal departments....tons..	205	60	265
Panama Railroad Co....tons..	18	.....	18
U. S. Army, excepting vessels....tons..	298	.....	298
Individuals and companies....tons..	264	.....	264
Total issues from Panama Canal deposits:			
February, 1924....tons..	20,328	83	20,411
February, 1923....tons..	13,117	117	13,234
February, 1922....tons..	22,183	1,545	23,728
Coal on hand, March 1, 1924....tons..	88,365	.....	88,365
Coal on hand, February 1, 1924....tons..	96,667	.....	96,667
Coal received during the month....tons..	12,026	[1] 83	12,109
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	4,942.25	43,256.60	49,198.85
Panama Railroad Co....bbls..	974.01	379.99	1,354.00
Army and Navy....bbls..	.....	1,983.12	1,983.12
Water drain from oil....bbls..	.....	813.43	813.43
Total issues and sales....bbls..	5,916.26	46,433.14	52,349.40
Fuel oil received during February, 1924....bbls..	.....	47,295.41	47,295.41
Fuel oil on hand, March 1, 1924....tons..	26,619.80	55,561.95	82,181.75
Diesel oil sold during February, 1924....bbls..	79.18	131.23	210.41
Diesel oil on hand, March 1, 1924....bbls..	40,962.18	620.75	41,582.93
Oil pumped for individuals and companies....bbls..	529,327.58	550,958.49	1,080,286.07
Miscellaneous transfers....bbls..	2,823.80	858.59	3,682.39
Gasoline pumped for Panama Canal....bbls..	558.57	1,328.40	1,886.97
Gasoline pumped for individuals and companies....bbls..	.....	2,626.23	2,626.23
Fuel oil transferred out of pipe line....bbls..	.....	478.30	478.30
Fuel oil transferred into pipe line....bbls..	.....	597.50	597.50
Total gasoline and fuel oil handled....bbls..	538,705.39	649,893.86	1,188,599.25
Admeasurement of vessels:			
U. S. equivalent certificates issued or made....	23	13	36
Measured for Panama Canal net tonnage....	5	6	11
Remeasured for Panama Canal net tonnage....	17	1	18
Panama Canal net tonnage corrected....	8	8	16
U. S. equivalent tonnage corrected....	17	11	28
Services of harbor equipment:			
Tugs, total operating hours....	345¾	352½	698¼
Launches, total operating hours....	1,222½	1,461½	2,684
Scows, total operating days....	.....	2	2
Revenues from tug service, pilotage, etc.:			
Tug revenue....	$10,433.75	$9,712.50	$20,146.25
Pilotage....	13,968.00	7,560.00	21,528.00
Seamen....	7,576.00	6,992.00	14,568.00
Launch service....	1,715.00	2,698.50	4,413.50
Ships measured....	300.00	215.00	515.00
Wharfage....	.....	4,802.73	4,802.73
Miscellaneous cash collections....	1,209.50	473.00	1,682.50
Vessels repaired at Panama Canal shops:			
Commercial....	44	17	61
U. S. Army and Navy....	4	7	11
Canal equipment....	8	23	31
Vessels dry docked:			
Commercial....	.....	2	2
Panama Canal equipment....	7	6	13
U. S. Army and Navy....	.....	1	1
Clearances issued....	241	230	471
Bills of health issued....	248	230	478

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	470	3,018,001	1,903,221	436	2,811,208	1,772,502
Vessels entering port but not transiting Canal	53	285,175	171,214	10	42,391	26,850
Vessels transiting Canal and handling passengers and cargo at terminals	64	367,396	228,136	53	282,242	168,701
Ships clearing.						
All vessels, including those transiting Canal	478	3,084,346	1,942,411	436	2,818,799	1,785,563
Vessels entering port but not transiting Canal	49	262,704	156,462	8	37,340	23,686
Vessels transiting Canal and handling cargo and passengers at terminals	67	379,213	235,201	55	289,675	172,920

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	1,219	1,015	2,234	20	46	66
From Pacific ports	166	58	224	107	132	239
Total disembarking	1,385	1,073	2,458	127	178	305
Embarking:						
For Atlantic ports	971	362	1,333	15	10	25
For Pacific ports	215	80	295	106	45	151
Total embarking	1,186	442	1,628	121	55	176
Remaining on board vessels:						
From Atlantic to Pacific ports	1,155	2,861	4,016	1,043	2,872	3,915
From Pacific to Atlantic ports	774	1,064	1,838	1,034	1,606	2,640
From Atlantic to Atlantic ports	1,882	77	1,959	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	9	196	205
Total remaining on board	3,811	4,002	7,813	2,086	4,674	6,760
Total passengers arriving	5,196	5,075	10,271	2,213	4,852	7,065
Total passengers departing	4,997	4,444	9,441	2,207	4,729	6,936

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of February, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$62.55	$152.82	$1,711.48	$178.30	$89.42	$2,194.57
Panama Railroad vessels	9.45	7.95	1,431.38	785.52	301.20	2,535.50
Other commercial vessels	1,098.50	5,570.19	11,629.84	335.99	931.15	19,565.67
Totals sales, February, 1924	1,170.50	5,730.96	14,772.70	1,299.81	1,321.77	24,295.74
Total sales, February, 1923	954.42	3,798.60	17,851.85	.....	1,792.85	24,397.72
Total sales, February, 1922	1,442.92	2,717.49	18,417.18	.....	1,319.90	23,897.49
Sales at Balboa to:						
U. S. Government vessels	156.60	405.50	2,842.29	269.74	323.25	3,997.38
Panama Railroad vessels	.....	.....	4.88	.....	.....	4.88
Commercial vessels	425.49	2,311.31	7,873.31	107.86	3,005.40	13,723.37
Total sales, February, 1924	582.09	2,716.81	10,720.48	377.60	3,328.65	17,725.63
Total sales, February, 1923	1,710.45	6,384.77	33,869.97	1,737.94	4,031.97	47,735.10
Total sales, February, 1922	360.85	3,148.28	12,233.83	.....	1,041.83	16,784.79

The aggregate sales to Government vessels during the month were $6,191.95; to Panama Railroad vessels $2,540.38; to other commercial vessels $33,289.04; making a grand total of sales to all vessels of $42,021.37.

LOCK OPERATION.

The triennial overhaul of the gates, valves, and all underwater parts of the locks at Gatun was begun on the fourth of the month. Both sides of the locks at Gatun were available and were used on the first 3 days of the month, but after the first lockage on February 4, 1924, the west chambers were put out of service for overhauling. The overhaul was completed and the chamber was used for regular commercial lockages beginning the morning of the 27th. Preparations were made to close the east flight early in March for overhaul.

During the period the west chambers were out of commission all ships were put through on the day of arrival. This was accomplished by working three 8-hour shifts on the one flight that was in commission.

The overhaul of the locks has necessitated an increase of force of approximately 66 gold men and 600 silver men. This temporary increase of force makes the working force for February 6, 1924, total 12,312, the greatest since September 21, 1921, which showed a total of 12,375.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of February, 1924, as compared with the corresponding month in 1923 and 1922:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Feb., 1924.	Feb., 1923.	Feb., 1922.
Gatun	197	209	406	12	10	22	428	341	206
Pedro Miguel	198	218	416	16	14	30	446	378	224
Miraflores	198	218	416	16	10	26	442	373	198
	Number of vessels put through locks.								
Gatun	204	225	429	37	28	65	494	436	255
Pedro Miguel	201	221	422	41	44	85	507	506	256
Miraflores	201	221	422	41	44	85	507	469	252

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	28	22	22
Panama Canal equipment	37	63	63

The total consumption of water for lockages, maintenance and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,671,860,000	1,220,410,000	1,187,350,000
Leakage	30,000,000	6,800,000	20,000,000
Maintenance	14,620,000	8,000,000	.....
Totals, February, 1924	1,716,480,000	1,235,210,000	1,207,350,000
Totals, January, 1924	2,027,120,000	1,839,510,000	1,729,490,000
Totals, December, 1923	2,020,620,000	1,921,340,000	1,752,480,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation, the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of February, 1924, are shown in comparative form:

Rainfall for month.	February, 1924.	February, 1923.	February—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	.33	T	2.51	T	.72
Central section	2.25	.15	4.28	.15	1.33
Atlantic section	3.63	.96	13.29	.73	2.26

Rainfall for month.	February, 1924.	February, 1923.	February—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Maximum recorded on any one day	2.23	.38	[1] 12.25	.....	.....
Gatun Lake watershed	3.35	.57	6.09	.37	1.87
Chagres River watershed above Alhajuela	2.82	1.10	5.92	.24	1.71
Maximum recorded for month at any one point	6.85	2.47	24.94	.....	.....
Hydrography.	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*
Discharge of Chagres River at Alhajuela	993	1,268	3,315	516	1,248
Maximum momentary discharge for the month	9,758	3,155	[2] 43,900	.....	.....
Gatun Lake watershed total yield	1,855	1,646	5,077	705	1,946
Gatun Lake watershed net yield	1,041	698	4,207	287	1,148
Draft on Gatun Lake for lockages and power	[3] 1,563	2,386	2,386	[4] 1,106	[4] 1,832

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] February 1, 1909. [3] Major power load carried by auxiliary plant at Miraflores. [4] Not including February, 1914.

SEISMOLOGY.

Seismic disturbances were recorded on the 7th and 22d.

ELECTRICAL—POWER AND WORK.

During the month of February, 1924, as during the preceding month, efforts were made to conserve water by using the Miraflores steam plant instead of the Gatun hydroelectric station. During January and February, 1924, 2,264,644,767 gallons of water were used as compared with 6,742,585,769 gallons during the same two months a year ago, a saving of 4,477,941,002 gallons.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., are shown in the following tabulation:

Item.	February, 1924.	February, 1923.	February, 1922.
Gross output, KWH:			
Gatun hydroelectric station	778,200	4,240,300	4,241,609
Miraflores steam plant	3,780,280	40	10,600
Power distributed to consumers.....KWH..	3,994,231	3,635,573	3,631,222
Loss of power in plants, accessories, transmission, and transformers.....KWH..	564,249	604,767	620,978
Per cent of loss of power to gross output	12.37	14.26	14.60
Water consumption.....cubic feet..	1,009,916,294	3,119,594,413	3,339,809,600
Oil consumption.....barrels..	22,615.67	1,293.00	1,810.00

Twenty-five work orders covering electrical repairs and installations of electrical equipment on 18 vessels were completed during the month, as well as the usual operation, maintenance and repair work.

There were 207 work orders issued for work performed by the different sections of the Electrical Division during the month, as compared with 286 during January, 1924.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month, miscellaneous repairs were made on 56 vessels at Cristobal and 47 at Balboa. The Mechanical Division reports an unusual scarcity of marine work. The employees of this division were kept busy, however, on plant work reserved for the dry season. There were no exceptionally large or important items of marine repair during the month.

The output of the factory in patterns and castings as compared with the preceding month was as follows:

	February, 1924.			January, 1924.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	10	754	36,427½	10	914	29,804
Steel	3	318	39,605½	2	312	46,058
Nonferrous	8	1,401	12,463	5	668	22,701½

There were 620 job orders on hand at the beginning of the month, 710 were authorized during the month and 713 completed, leaving 617 on hand at the close of the month.

There were 361 standing orders on hand at the beginning of the month, none were completed and none were authorized during the month, leaving 361 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The total output of the 3 filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels are shown in comparative form in the following tabulation:

	February, 1924.	February, 1923.	February, 1922.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	643,282,750	685,942,500	629,793,750
Filtration plants	374,423,000	393,798,000	358,774,000
Water consumed by Panama	92,093,000	89,097,000	75,265,000
Water consumed by Colon	52,192,250	58,133,500	53,526,000
Sales of water to vessels	11,795,775	9,506,962	9,597,295

DREDGING.

All slides were quiescent during the month of February, 1924, with the exception of West Lirio, south.

The slide at West Lirio, south, extending between stations 1735 and 1737 west, continued slightly active during the month. During the latter part of the month the north shoulder, which had partially broken up during the period of greatest activity in October, started to settle down between stations 1727 and 1731. The movement has been so gradual, however, that the dredge has been able to take care of the material as rapidly as the pushout takes place. The total yardage removed from this slide since October 28, 1923, is 920,610 cubic yards.

There was no interference with Canal traffic during the month, either from slides or from the operations of the Dredging Division. The total excavation during the month was 323,900 cubic yards as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
71,750	10,750	61,000	Maintenance	Gaillard Cut, west Culebra slide	*Cascadas.*
4,050	800	3,250	Maintenance	Gaillard Cut, Cucuracha signal station slide	*Cascadas.*
1,100	200	900	Maintenance	Gaillard Cut, Gibraltar Point	*Cascadas.*
13,700	3,400	10,300	Maintenance	Pacific entrance	*Cascadas.*
52,000	10,400	41,600	Maintenance	Gaillard Cut, west Lirio slide south	*Gamboa.*
8,000	1,600	6,400	Maintenance	Gaillard Cut, east barge repair	*Gamboa.*
61,000	13,100	47,900	Maintenance	Gaillard Cut, La Pita improvement project	*Gamboa.*
1,200	250	950	Maintenance	Gaillard Cut, Gibraltar Point	*Gamboa.*
91,000	91,000	.....	Maintenance	Gaillard Cut, Bas Obispo reach	*No. 86.*
20,100	20,100	.....	Maintenance	Pacific entrance	*No. 86.*

VITAL STATISTICS.

A total of 186 deaths occurred during the month of February, 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 18.14 per thousand. The leading causes of death were: pneumonia (broncho and lobar), 30; tuberculosis (various organs), 24; diarrhea and enteritis (including colitis), 16; organic diseases of the heart, 13; bronchitis (acute and chronic), 7; and cancer, 7. There were 6 deaths from nephritis, (acute and chronic), and 5 from apoplexy. Of the total deaths, 72, or 39 per cent occurred among children under 5 years of age. There were 23 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 319 live births reported during the month, and 9 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 31.98 per 1,000 population. Deaths among children under 1 year of age numbered 50, giving an infant mortality rate of 156.74 per thousand live births.

The total number of malaria cases reported during the month was 105. Of these, 3 cases were reported from Panama City, 1 from Colon, 73 from the Canal Zone, and 28 originated outside of our sanitated area. Of the total, 19 were employees, 38 were nonemployees, 48 were Army and Navy. There were 3 deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of February 29, 1924.			Comparative totals.		
	Men.	Women.	Children.	February, 1924.	February, 1923.	February, 1922.
Americans	2,525	2,122	2,277	6,924	6,304	6,529
Europeans	77	29	69	175	175	229
West Indians	4,156	2,608	6,059	12,823	12,802	12,128
Totals, February, 1924	6,758	4,759	8,405	19,922	.....	.....
Totals, February, 1923	6,626	4,640	8,019	.....	19,285	.....
Totals, February, 1922	66,25	4,406	7,855	.....	.....	18,886

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of February 20, 1924:

	As of February 20, 1924.			Total employees.	
	Gold.	Silver.	Total.	January, 1924.	February, 1923.
Operation and Maintenance:					
Office	29	46	75	69	75
Electrical	161	196	357	345	345
Municipal Engineering	70	513	583	565	568
Lock Operation	275	1,328	1,603	836	782
Dredging	159	880	1,039	1,030	912
Mechanical	410	830	1,240	1,213	907
Marine	171	529	700	753	579
Fortifications	12	22	34	56	148
Totals	1,287	4,344	5,631	4,867	4,316
Supply Department:					
Quartermaster	146	1,120	1,266	1,209	1,025
Subsistence	12	114	126	115	115
Commissary	170	822	992	1,043	1,028
Cattle Industry, plantations	5	184	189	197	341
Hotel Washington	8	96	104	103	99
Transportation	33	159	192	190	189
Totals	374	2,495	2,869	2,857	2,797
Accounting Department	192	8	200	199	191
Health Department	226	704	930	937	919
Executive Department	481	249	730	758	722
Totals	899	961	1,860	1,894	1,832
Panama Railroad:					
Superintendent	48	251	299	334	265
Transportation	65	112	177	168	170
Receiving and Forwarding Agent	76	766	842	998	684
Coaling stations	61	509	570	560	767
Totals	250	1,638	1,888	2,060	1,886
Grand totals, February, 1924	2,810	9,438	12,248	.....	.....
Grand totals, January, 1924	2,732	8,946	.....	11,678	.....
Grand totals, February, 1923	2,531	8,300	.....	.....	10,831

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month in 1923 were as follows:

	February, 1924.	January, 1924.	February, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$363,155.46	$425,367.97	$124,361.51
For other Panama Canal departments	11,965.88	28,188.36	4,189.72
Totals	375,121.34	453,556.33	128,551.23

	February, 1924.	January, 1924.	February, 1923.
Cash sales on the Isthmus:			
Stock	21,086.26	23,378.80	21,973.48
Fuel oil	3,268.39	151.16	394.14
Scrap	576.28	489.41	1,600.25
Obsolete and second-hand material	2,123.20	1,243.31	11,938.10
Totals	27,054.33	25,262.68	35,905.97

Respectfully,
M. L. WALKER,
Acting Governor.

Small Yacht on Intercoastal Cruise.

The auxiliary ketch yacht *Thetis* arrived at Cristobal on March 14, en route from New York to Bellingham, Wash. The *Thetis* is 42 feet long, has a beam of 15 feet, a draft of 8 feet and measures 17 net tons, Panama Canal measurement. She is commanded by her owner, Carl M. Erb, of Bellingham, Wash., and carries a crew of 4. The craft made the transit of the Canal from the Atlantic to the Pacific on March 20, and is now in the harbor at Balboa.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended March 24:

Steamships *Lake Flattery*, make two couplings for shaft of circulating pump, fork for drill press, feed wheel for shaper, 4 hex nuts, and 5 shackles; cut and fit manhole plate in after bilge well; stop leak in shell, etc.; *General W. C. Gorgas*, line up main engine beam pumps and repair beam as directed; repair one section of bilge suction to ballast pump and one section in engine room; repair copper steam pipe to fresh water pump; *Tulsagas*, services of diver to examine bottom; repair steering gear and main turbine and gears; floating caisson, Gatun spillway, drydock, scale and paint with bitumastic inside and outside; renew decking and corner sills, and calk same, etc.; U. S. S. *Curlew*, repair safety valves, suction line to fuel oil tanks, water column valves, auxiliary stop valve, main deck pump, and quadrant, etc.

Minor repairs—Steamships *Bolton Castle*, *Ucayali*, *San Juan*, *Toco*, *Carillo*, *Acajutla*, *Andromede*, motorship *Laura C. Hall*, yacht *Silver Star*, launch *Dorothy*, and submarines U. S. S. *O–4* and *O–6*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending March 22, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Talaralite	Imperial Oil Co.	March 16.	March 24.	2,558	12
Jamaica	Pacific Steam Navigation Co.	March 16.	March 16.	.....	1
Arana	Pacific Steam Navigation Co.	March 17.	March 17.	1	.....
Laura C. Hall	Pacific Metals Corporation	March 17.	March 18.	8	.....
Atrato	Colombian Transport Co.	March 17.	March 20.	25	106
Argo	E. T. Baker	March 18.	March 18.	14	.....
San Juan	Pacific Mail Steamship Co.	March 18.	March 19.	72	.....
Rakuyo Maru	Toyo Kisen Kaisha	March 19.	March 19.	672	14
Venezuela	Pacific Mail Steamship Co.	March 22.	March 22.	20	.....
El Lobo	Anglo-Saxon Petroleum Co.	March 22.	March 23.	5,788	.....

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations must be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is, "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 22, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Canadian Spinner	15	11.22	16	5.55	16	13.08	16	14.30	British	Canadian Govt. Mer. Marine	400.0	52.0	19.11	Halifax	Auckland	Autos, general	6,009	5,871	4,094
Jamaica	3	18.15	16	6.10	16	16.26	16	17.32	British	Pacific Steam Navigation Co	220.0	33.1	13.0	Cristobal	Champerico	General	757	1,187	622
Lydia	15	15.50	16	6.15	16	14.29	16	15.31	American	Lydia Steamship Co	366.0	48.2	22.0	New Orleans	San Francisco	General	3,876	4,620	3,337
Volumnia	15	22.48	16	7.12	16	15.15	16	16.10	British	Gow Harrison & Co	423.6	56.0	16.0	Marseilles	Vancouver	Ballast		6,229	4,524
Garfield	16	7.50	16	8.50	16	16.51	16	21.31	American	Grace Line	299.4	45.0	17.8	New York	Pacasmayo	General	1,771	3,256	2,010
Nordkap	16	7.12	16	9.00	16	16.55	16	18.30	Danish	Peter Brown & Co	350.0	44.0	21.11	New York	San Antonio	General, coke	3,700	3,755	2,712
D. G. Schofield [1]	16	11.53	16	12.05	16	18.51	16	19.56	American	Standard Oil Co	439.5	58.0	20.0	New York	Los Angeles	Ballast		8,698	6,013
Norman Monarch	16	13.05	16	13.15	16	20.12	16	21.06	British	Raeburn & Verel	400.0	52.0	15.0	Wilmington	Iquique	Ballast		5,568	4,146
Santa Barbara	17	3.50	17	12.10	17	18.54	17	19.53	American	Grace Line	404.6	53.9	21.3	Baltimore	San Francisco	General	4,710	6,789	4,746
K. R. Kingsbury [2]	17	20.05	18	5.45	18	14.11	18	15.08	American	Standard Oil Co	440.0	53.2	22.0	New York	Los Angeles	Ballast		9,033	5,938
Lebore	17	21.55	18	6.27	18	15.16	18	16.30	American	Ore Steamship Co	550.1	72.0	25.0	New York	Cruz Grande	Ballast		14,325	4,635
Indien [2]	18	4.00	18	7.17	18	16.12	18	17.00	Danish	Orient Steamship Co	379.0	51.7	14.4	New Orleans	San Francisco	Ballast		6,173	4,418
Eupatoria	16	17.40	18	8.10	18	16.30	18	17.40	German	Hamburg-American Line	357.0	48.4	17.0	Hamburg	Champerico	General	2,487	4,232	3,068
Bethelridge [1]	18	5.25	18	8.48	18	17.05	18	18.15	American	Walker & Daly (S. B.)	431.0	59.2	21.0	New York	San Pedro	Ballast		7,819	5,076
Patrick Henry	18	6.35	18	9.40	18	18.21	18	19.16	American	Tampa Interocean Co. (S. B.)	455.0	60.0	23.0	New Orleans	Taku Bar	General	7,855	8,987	6,612
Susan Maersk	18	6.55	18	10.28	18	19.14	18	20.16	Danish	A. P. Moller & Co	299.8	42.4	13.0	Odense	Anacortes	Ballast		2,586	1,827
Francis E. Powell [1]	18	13.10	18	13.15	18	20.20	18	21.20	American	Atlantic Refining Co	431.0	59.2	22.0	Philadelphia	San Pedro	Ballast		7,860	5,101
No. 2920 [3]	.....	.....	18	.....	18	11.56	.....	.....	Panaman	A. Ami. Cervera	.....	.....	.....	Cristobal	Gatun Lake	Ballast		1	1
Ruahine	18	17.08	19	4.40	19	11.27	19	22.09	British	New Zealand Shipping Co	480.6	60.3	25.0	London	Wellington	General	5,162	11,292	8,266
Denver [4]	18	12.36	19	5.35	19	12.47	.....	.....	American	U. S. Navy	292.0	44.0	17.6	Ceiba	Balboa	Ballast		.....	.....
Bethore	19	3.15	19	6.15	19	14.13	19	15.47	American	Ore Steamship Co	550.3	72.2	27.0	New York	Cruz Grande	Ballast		15,476	4,354
Maine	19	4.45	19	9.15	19	17.08	19	23.56	American	Fairfield Steamship Co	402.0	54.2	27.6	Baltimore	Seattle	General	8,663	6,936	4,998
George Allen	19	7.32	19	7.45	19	15.32	19	16.37	American	Garland Steamship Co	385.3	51.2	26.6	New York	Shanghai	Gen., sulphur	7,527	6,224	4,465
Bolton Castle	18	20.35	19	11.30	19	18.59	19	22.09	British	James Chambers & Co	424.2	53.0	27.6	New York	Shanghai	Kerosene, gen	7,200	6,489	4,869
Lillian Luckenbach	19	14.32	20	4.35	20	11.49	20	12.50	American	Luckenbach Line	448.9	60.2	28.0	New York	Seattle	General	8,500	9,294	6,865
Bantu	19	14.37	20	5.25	20	14.11	20	17.05	American	U. S. Steel Products Co	360.0	47.0	26.11	New York	Valparaiso	General, steel	5,472	4,607	3,032
Laura C. Hall [5]	18	17.52	20	6.10	20	15.06	20	16.13	British	Pacific Metals Corporation	81.0	26.0	9.0	Cristobal	Buenaventura	General	88	132	72
Thetis [6]	14	6.05	20	6.20	20	17.05	.....	.....	American	Carl M. Erb	42.0	15.0	8.0	New York	Bellingham	Ballast		21	17
Buenos Aires	19	6.52	20	6.00	20	14.59	20	15.40	Spanish	Cia Trasatlantica	407.0	47.0	21.5	Barcelona	Valparaiso	General	226	5,624	3,844
Nile	19	17.18	20	6.55	20	15.35	20	16.46	British	Nile Steamship Co	423.6	56.0	15.0	Charleston	Tocopilla	Ballast		6,319	4,552
Munrio	20	1.15	20	8.00	20	16.23	20	17.35	American	Munrio Steamship Co	333.6	48.2	18.0	Baltimore	San Diego	General	3,650	4,165	3,066
Byron D. Benson [1]	20	1 20	20	9.04	20	17.01	20	18.25	American	Tidewater Oil Co	465.4	60.2	22.0	New York	San Pedro	Ballast		8,546	6,095

[1] Tanker. [2] Motorship. [3] Cayuca. [4] Cruiser. [5] Motorschooner. [6] Yacht.

Kroonland	20	9.25	20	9.55	20	17.49	21	1.26	American	Panama-Pacific Line	560.0	60.2	24.0	New York	San Francisco	(7)	1,600	13,514	9,127
Calcutta Maru	20	7.12	20	10.31	20	19.04	20	23.14	Japanese	Nippon Yusen Kaisha	400.0	51.0	20.0	New York	Yokohama	General	5,150	5,790	4,183
Alvarado	19	16.52	20	12.00	20	20.54	20	22.09	British	Pacific Steam Navigation Co	303.0	43.0	17.6	New York	Callao	General	1,960	2,844	1,748
City of Florence	19	16.20	20	11.35	20	19.44	21	13.33	British	Ellerman Hall Line	448.8	56.2	25.9	New York	Sydney	General	6,392	8,742	6,831
A. L. Kent	20	11.09	20	12.00	20	21.23	21	19.26	American	Mystic Steamship Co	394.1	55.1	27.0	New York	Seattle	General, steel	8,236	7,047	5,030
F. J. Luckenbach	20	13.23	21	5.50	21	13.11	21	14.29	American	Luckenbach Line	446.0	56.0	29.0	Galveston	Seattle	General	9,100	8,508	6,179
Canada Maru	20	20.40	21	6.20	21	14.03	21	15.22	Japanese	Osaka Shosen Kaisha	400.0	51.8	23.0	Buenos Aires	Kobe	General	3,131	5,999	4,101
A. C. Bedford [1]	21	7.10	21	7.25	21	14.53	21	16.02	American	Standard Oil Co	590.0	68.0	19.0	New York	San Pedro	Ballast		10,896	7,688
Dakotan	21	8.30	21	8.47	21	16.23	22	0.42	American	American-Hawaiian Line	407.7	53.7	21.6	New York	Los Angeles	General	5,552	7,156	5,058
Chilore	21	13.55	21	14.08	21	22.09	21	22.03	American	Ore Steamship Co	549.0	72.0	22.0	Baltimore	Cruz Grande	Ballast		14,538	9,348
R-26 [8]			21	8.35	21	16.26			American	U. S. Navy	175.0	16.7¾		Cristobal	Balboa	Ballast			
Venezuela	21	16.35	22	4.07	22	11.13	22	21.31	American	Pacific Mail Steamship Co	380.0	48.6	23.3	New York	San Francisco	General	3,041	6,033	4,353
Cincinnus	21	22.45	22	5.15	22	14.20	22	18.50	American	Planet Steamship Line	410.0	54.2	25.0	Boston	Vancouver	General, steel	7,666	6,585	4,791
Victolite [1]	22	2.50	22	6.30	22	14.55	22	16.15	British	Imperial Oil Co	499.0	68.0	22.0	New York	Talara	Ballast		11,049	7,732
H. C. Folger [1]	22	2.25	22	7.20	22	15.40	22	16.50	American	Atlantic Refining Co	435.0	56.0	19.0	Philadelphia	San Pedro	Ballast			
Sumanco	22	5.38	22	7.45	22	17.00	22	17.52	American	Transmarine Corporation	324.0	46.2	19.6	Newport News	San Francisco	General	3,000	3,984	2,612
Osiris [9]	22	7.25	22	8.10	22	15.45	22	19.51	German	Kosmos Line	375.0	51.0	20.0	Hamburg	San Pedro	General	4,150	5,788	4,023
Clan Skene	21	22.45	22	9.00	22	17.34	22	18.30	British	Cayzer Irvine & Co	401.0	52.3	19.7	New York	Brisbane	General	2,060		
Kentucky	22	2.32	22	10 10	22	18.25	22	19.07	British	Ellerman Bucknall Line	447.0	56.0	23.0	New York	Brisbane	General	4,914	7,825	5,921
Rapot	22	10.50	22	11.07	22	18.53	22	19.57	German	Roland Line	393.0	54.0	20.0	Hamburg	Arica	General	4,353	6,583	4,660
Aconcagua	21	20.10	22	11.45	22	19.28	22	20.50	Chilean	Chilean Line	422.8	56.2		New York	Valparaiso	General	2,572	7,758	4,705
Ruby [10]	20		22		22	13.16			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		1	1

[1] Tanker. [7] Automobiles, iron, steel, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[8] Submarine. [9] Motor ship. [10] Launch.

Riol	15	17.20	16	6.23	16	17.20	16	17.20	German	Roland Line	367.0	51.0	23.6	San Antonio	English Chan.	(14)	5,825	4,899	3,704
F. Q. Barstow [1]	15	20.30	16	7.12	16	18.18	16	18.18	American	Standard Oil Co	590.0	68.2	29.6	San Pedro	New York	Crude oil	14,653	10,530	7,604
Arantza Mendi	16	3 30	16	10.55	16	19.40	16	19.40	Spanish	Sota y Aznar	377.7	48.6	22.10	San Francisco	Hull	Barley	5,180	4,934	3,451
Diana Dollar	16	9.15	16	13.42	16	21.12	16	21.12	American	Robert Dollar Line	429.0	55.2	24.0	Port Angeles	Baltimore	Lumber, general	7,106	7,582	5,521
Agwistone [1]	16	15.40	17	6.32	17	16.20	17	16.20	American	International Shipping Co	499.9	68.1	28.6	San Pedro	New York	Crude oil	13,612	10,853	7,804
Glasgow Maru	17	1.30	17	7.37	17	17.15	18	17.45	Japanese	Kabusai Kisen Kaisha	385.0	51.0	27 6	Caleta Colosa	Mobile	Nitrates	8,304	6,213	4,665
Santa Paula	17	8.15	17	9.13	17	18.20	18	16.28	American	Pacific Mail Steamship Co	404.6	53.9	26.6	San Francisco	New York	General	4,200	6,756	4,775
Anna Kayser	17	8.00	17	9.49	17	19.25	17	20.35	German	A. G. Kayser	388.7	47.9	25.6	Portland	Fayal [13]	Wheat	5,891	5,538	3,768
Santa Teresa	17	9.00	17	10.58	17	20.27	17	23.35	American	Grace Line	360.2	51.6	24.6	San Antonio	New York	General	3,777	5,726	4,086
Glentworth	17	1.00	17	11.18	17	21.27	17	21.27	British	R. S. Dalgliesh, Ltd	459.0	55.6	25.6	Vancouver	Marseilles	Wheat	8,303	7,999	5,867
Arana	17	11.05	17	12.21	17	22.52	18	19.07	British	Pacific Steam Navigation Co	303.4	43.0	17.0	Callao	New York	General	1,296	2,851	1,697
Ucayali	17	5.00	17	13.14	17	22.55	23	11.35	Peruvian	Peruvian Line	374.7	46.3	19.6	Callao	Cristobal	General	1,162	4,466	2,405
Melvin [11]	17	10.30	18	6.43	18	17.30	18	17.30	American	U. S. Navy	310.0	31.0	9.6	San Diego	Culebra Island				
Kennedy [12]	17	10.30	18	6.37	18	17.30	18	17.30	American	U. S. Navy	310.0	31.0	11.1	San Diego	Culebra Island				
Agwimoon [1]	17	14.00	18	6.50	18	18.40	18	18.40	American	Ward Line	429.3	59.2	28.0	San Pedro	New York	Crude oil	10,000	7,695	5,402
Laura C. Hall	17	16.00	18	6.57	18	17.52	20	6.10	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	(15)	(16)	132	72
Craster Hall	17	22.30	18	7.18	18	20.00	18	22.35	American	Isthmian Lines	380.0	50.0	23.6	Vancouver	Belfast	General	5,697	4,945	3,508
San Fernando [1]	17	24.00	18	8.42	18	21.03	18	21.03	British	Eagle Oil Transport Co	530.4	69.4	31.10	San Pedro	Tuxpan	Crude oil	17,850	13,266	9,609
Feltore	18	0.55	18	9.08	18	21.55	18	21.55	American	Ore Steamship Corporation	449.0	57.2	29.6	Cruz Grande	Baltimore	Iron ore	11,000	7,808	5,139
W. M. Irish [1]	18	1.45	18	9.30	18	22.45	18	22.45	American	Atlantic Refining Co	435.0	56.0	27.10	San Pedro	Philadelphia	Gasoline	10,000	7,387	5,443
Holland Maru	18	3.30	18	9.55	18	23.30	18	23.30	Japanese	Kasasaki Kisen Kaisha	385.0	51.0	25.9	Vancouver	United King	Wheat	7,098	5,926	4,434

[1] Tanker. [11] Destroyer No. 335. [12] Destroyer No. 306. [13] For orders. [14] Metals, barley, cocoa, and ore. [15] Drugs and platinum. [16] Value $121,738.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Line.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Agwismith [1]	18	6.05	18	10.13	19	0.25	19	0.35	American	International Shipping Co	499.9	68.1	28.0	San Pedro	New York	Crude oil	14,500	10,853	7,736
Commercial Pathfinder	18	8.40	18	11.25	19	2.35	19	7.35	American	Moore & McCormack Co	395.1	49.4	24.2	Seattle	London	General	6,500	5,220	3,734
Japan Arrow [1]	18	9.30	18	11.45	19	3.15	19	3.15	American	Standard Transportation Co	468.3	62.7	28.0	Los Angeles	New York	Crude oil	12,090	10,084	7,426
Pennsylvanian	17	22.00	18	13.18	19	4.45	19	4.45	American	American-Hawaiian Line	407.7	53.7	25.0	Seattle	New York	[18]	5,762	7,107	4,916
San Juan	18	15.00	19	6.36	19	16.10	....	.....	American	Pacific Mail Steamship Co	283.0	37.0	17.0	San Francisco	Cristobal	Coffee, general	1,474	2,379	1,593
Hamlin F. McCormick	18	21.30	19	7.12	19	18.10	19	18.10	American	Chas. R. McCormick Co	321.7	50.0	21.3	Aberdeen	New York	Lumber	4,080	3,883	2,484
Mineola	19	0.28	19	8.18	19	18.18	19	18.18	American	N. O. & S. A. S. S. Co	298.6	40.0	21.6	Caleta Buena	New Orleans	Nitrate of soda	3,400	2,835	1,805
Laristan	19	11.30	20	6.34	20	17.49	20	18.40	British	Hindustan Steamship Co	380.0	53.5	22.0	Vancouver	Gibraltar	Wheat	6,782	5,314	3,987
Atlantic	20	3.00	20	7.31	20	18.35	20	20.10	American	Norton, Lilly & Co	410.5	54.3	24.0	Iquique	Charleston	Nitrate of soda	7,800	6,567	4,917
Tulsagas [1]	19	23.52	20	12.40	20	22.15	22	12.27	American	McAllister Brothers (S. B.)	431.0	59.2	25.5	San Pedro	New York	Crude oil	9,000	7,817	5,048
Yorba Linda [1]	20	12.00	20	14.00	20	22.25	20	22.25	American	General Petroleum Corporation	435.0	56.2	27.0	San Pedro	Philadelphia	Gasoline	10,343	7,424	5,077
Miskianza [1]	20	15.00	21	6.23	21	14.18	21	14.18	American	Walker & Daly (S. B.)	425.8	57.2	26.0	San Pedro	New York	Crude oil	9,786	7,205	4,897
Ammon	20	22.00	21	7.18	21	15.10	22	65.0	German	Kosmos Line	438.2	55.3	21.6	Corral	Hamburg	General	6,248	7,341	5,200
Oroya	21	4.00	21	8.31	21	19.15	22	3.00	British	Pacific Steam Navigation Co	525.3	62.8	21.6	Talcahuano	Liverpool	[19]	8,680	13,133	9,064
Toco [1]	20	23.30	21	8.39	21	19.55	.....	.....	British	Chile Steamship Co	440.8	56.1	15.0	Tocopilla	Tampico	Ballast	.....	7,693	4,831
Steel Age	20	23.13	21	9.07	21	20.35	21	20.35	American	Isthmian Steamship Lines	395.5	55.0	22.10	Honolulu	Baltimore	General	6,497	7,330	5,245
Helder	21	7.30	21	9.52	21	21.35	23	3.35	Dutch	Royal Netherlands W. I. Mail	370.0	50.0	22.0	Corral	Havre	[20]	5,372	5,117	3,807
E. T. Bedford [1]	21	11.45	21	12.28	21	22.20	21	22.20	American	Standard Oil Co. of N. J.	499.2	68.1	30.6	Los Angeles	New York	Crude oil (bulk)	15,400	11,009	7,967
Laurel Branch	21	15.30	22	6.32	22	16.40	22	18.20	British	F. and W. Ritson & Co	360.0	46.0	22.6	Puntarenas	Liverpool	General	5,390	4,182	3,047
R-27 [17]	.....	.....	22	6.00	22	16.06	.....	.....	American	U. S. Navy	175.0	16.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Leguna	22	3.40	22	10.24	22	18.30	22	18.31	British	Pacific Steam Navigation Co	420.5	54.2	28.0	Valparaiso	Liverpool	General	8,741	7,085	4,586
Andromede	22	9.30	22	10.38	22	20.05	.....	.....	French	Messageries Maritimes	450.34	56.9	24.5	Noumea	Marseilles	General	6,309	7,984	5,472
John D. Archbold [1]	22	10.15	22	11.15	22	21.25	22	21.55	American	Standard Oil Co. of N. J.	554.9	75.3	31.6	San Pedro	New York	Crude oil	19,967	14,785	10,313
Acajutla	22	12.30	22	13.21	22	22.37	.....	.....	British	Pacific Steam Navigation Co	215.7	33.5	17.0	La Union	Cristobal	Coffee, general	1,070	1,273	706

[1] Tanker. [17] Submarine. [18] Shingles, lumber, canned goods, oriental general. [19] Metals, sugar, nitrates, etc. [20] Nitrate, borate and cocoa.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
March 6	Benefit [21]	Colon Import & Export Co	Colon.
March 16	Parismina	United Fruit Co	New Orleans via Habana.
March 17	Pastores	United Fruit Co	Port Limon.
March 18	Regulus [22]	French Government	Martinique.
March 19	Atenas	United Fruit Co	New Orleans via Habana.
March 19	Parismina	United Fruit Co	Bocas del Toro.
March 19	Carrillo	United Fruit Co	New York via Kingston.

*DEPARTURES.

Date.	Vessel.	Line.	For—
March 16	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayport
March 16	Parismina	United Fruit Co	Bocas del Toro.
March 17	Pastores	United Fruit Co	New York via Habana.
March 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
March 19	Parismina	United Fruit Co	New Orleans via Habana.
March 19	Antillian	Leyland Line	Cardenas.
March 19	Atenas	United Fruit Co	New Orleans via wayports.

[21] Schooner. [22] Cruiser.

* Other than ships passing through the Canal.

(Continued on page 482, column 2.)

Executive Order.

Relating to the Division of the Canal Zone Into Two Judicial Districts, and Amending the Executive Order Promulgated March 12, 1914.

By virtue of the authority vested in me I hereby establish the following order for the Canal Zone:

SECTION I. Section 1 of the Executive Order of March 12, 1914, is hereby amended to read as follows:

"Section 1. The Balboa Division of the District Court of the Canal Zone, in conformity with the Panama Canal Act, shall include all that part of the Canal Zone which lies within the lines of the ten mile zone and extends from the south bank of the Chagres River and the shore line of Gatun Lake, 87 feet above mean sea level, to the Pacific Ocean, and in addition thereto the following territory, now a part of the Canal Zone:

Beginning at the crossing of the Rio Chagres and the 100-foot contour, said crossing being approximately two miles above the Alhajuela dam site, thence along the left bank of the Rio Chagres following the 100-foot contour to its crossing of the Que Moja Polla; thence following the Que Moja Polla to its headwaters in the saddle between the 280-foot contours in the Alhajuela plateau; thence following through said saddle, in a northeasterly direction, to the 260-foot contour; thence following the 260-foot contour up and around the Rio Chagres and its tributaries on the left bank to its crossing of the Rio Chagres at latitude 9° 16′ and longitude 79° 31′; thence following along the 260-foot contour down the right bank of the Rio Chagres to a point opposite Dos Bocas; thence following the 260-foot contour up the left bank of the Rio Pequeni in a generally northerly direction to its crossing of the river at latitude 9° 22′ 45″ and longitude 79° 31′ 45″; thence following the 260-foot contour down the right bank of the Boqueron at latitude 9° 23′ and longitude 79° 34′; thence down the right bank of the Boqueron, the Rio Pequeni, and the Rio Chagres always along the 260-foot contour to or opposite to the present United States Government reservation at Alhajuela; thence leaving the 260-foot contour, in an easterly direction, to and along the north boundary of the aforesaid Alhajuela reservation to the 100-foot contour on the right bank of the Rio Chagres; thence along the 100-foot contour upstream to the point of beginning, said point of beginning being on latitude 9° 13′ 09″ and longitude 79° 37′ 14″.

For that part above the dam site the continuous 260-foot contour is the boundary line, except where it leaves the Alhajuela Lake basin. In such case the boundary line is the 260-foot contour up to the middle line of the saddle, and thence it follows along the middle line of the saddle to the 260-foot contour on the opposite side, and thence along the 260-foot contour of the basin until the next low saddle is encountered, where the same procedure is followed. In that part below the dam site or outside the basin area there is included, in addition to the land already described, the area within the isolated 260-foot contour on the right bank of the river and just to the north of the dame site.

The total area to be taken over is twenty-two (22) square miles, more or less, of which the basin area comprises twenty-one and two-tenths (21.2) square miles, and the part below the dam site comprises the balance of eight-tenths (0.8) of a square mile. In the above description references to latitude and longitude are approximate only;

and the Cristobal Division of said Court shall include all of the territory within the lines of the ten mile zone, extending from the Balboa Division to the Atlantic Ocean, and the area of Gatun Lake beyond the lines of the ten mile zone up to the contour line of 100 feet above mean sea level and the islands in said lake; and the peninsulas bordering on said lake which have been taken by the United States for the purposes of the Panama Canal. The District Court of the Canal Zone shall exercise in said divisions as herein prescribed the power and jurisdiction conferred upon it by law and previously exercised in the two divisions of the Canal Zone."

SECTION II. This order shall take effect and be in force from and after the 26th day of February, 1924.

CALVIN COOLIDGE

THE WHITE HOUSE,

February 26, 1924.

[No. 3965.]

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 21, 1924.

To all concerned—The below very satisfactory correspondence is published for the information of all employees of The Panama Canal and Panama Railroad.

M. L. WALKER,
Acting Governor.

WASHINGTON, D. C., March 7, 1924.

MEMORANDUM FOR THE CHIEF OF OFFICE,
The Panama Canal,
Washington, D. C.

It is desired that the Governor of The Panama Canal be informed as follows:

With reference to your letter of January 29, 1924, transmitting a copy of a bulletin issued by Col. M. L. Walker, Acting Governor of The Panama Canal, dated January 19, 1924, relative to the manner in which traffic was handled during the recent Joint Army and Navy exercises, I am pleased to inform you that the report of the Chief Umpire, Joint Army and Navy exercises, dated January 24, 1924, which has been received in the War Department, indicates that there was excellent cooperation between the Panama Canal authorities and the Army and Navy forces during these exercises. It has been noted that the transit of the Blue Battle Fleet was accomplished in less time than was called for by the plans tentatively agreed upon without interfering with the movement of a very heavy commercial traffic.

The Acting Chief of Staff of the Army has called my attention to the very effective assistance rendered the local Army and Navy forces through the loan of surface craft for patrol duty and in the transportation of units and supplies. I am advised that without this assistance and cooperation it would have been impossible to have carried out the exercises as planned by the local Army and Navy forces.

I desire to take advantage of this opportunity to express my appreciation of the spirt of cooperation as indicated above and in carrying out the instructions contained in my letter of October 22, 1923, and I shall be pleased if you will so advise the employees of the Panama Canal and the Panama Railroad.

JOHN W. WEEKS,
Secretary of War.

WASHINGTON, D. C., March 8, 1924.

Hon. JOHN W. WEEKS,
Secretary of War,
Washington, D. C.

Subject: Cooperation of The Panama Canal in Joint Army and Navy Exercises.

MY DEAR MR. SECRETARY:

I have your memorandum of yesterday, and have forwarded a copy to the Acting Governor, who will make it the subject of a circular to the employees as you have directed.

It is a pleasure to me, and will be to all employees, that the spirit of service, in which we all take such pride, is productive of the results outlined in your memorandum, is recognized by the Acting Chief of Staff of the Army, and commended by the Secretary of War. All of this will help to maintain the high morale of the Canal and Railroad forces; and, speaking for them, I am pleased to extend to you, and, through you, to General Hines, their thanks for your cordial messages.

Sincerely yours,

JAY J. MORROW,
Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending March 22, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Eupatoria	Hamburg-American Line	March 16.	March 18.	308	353
Parismina	United Fruit Co.	March 16.	March 16.	30	250
Arana	Pacific Steam Navigation Co.	March 17.	March 18.	785	(4)
Ucayali	Peruvian Line	March 17.	March 20.	1,162	(4)
Santa Paula	Pacific Mail Steamship Co.	March 17.	March 18.	1,342	117
Pastores	United Fruit Co.	March 17.	March 17.	(1)	2
Santa Barbara	Pacific Mail Steamship Co.	March 17.	March 17.	152	103
Cristobal	Panama Railroad Steamship Line.		March 19.		1,718
Laura C. Hall	Pacific Metals Corporation	March 18.	March 20.	(2)	107
Alvarado	Pacific Steam Navigation Co.	March 19.	March 20.	46	374
Buenos Aires	Spanish Line	March 19.	March 20.	211	(4)
Atenas	United Fruit Co.	March 19.	March 19.	525	87
Parismina	United Fruit Co.	March 19.	March 19.	(3)	10
San Juan	Pacific Mail Steamship Co.	March 19.		1,474	
Carrillo	United Fruit Co.	March 19.	March 20.	280	200
Sixaola	United Fruit Co.	March 19.	March 20.	11	152
San Benito	United Fruit Co.	March 20.	March 21.	6	14
Tsad	Hamburg-American Line	March 20.	March 21.	340	34½
Venezuela	Pacific Mail Steamship Co.	March 21.	March 22.	156	63
Aconcagua	Chilean Line	March 21.	March 22.	(3)	300
Oroya	Pacific Steam Navigation Co.	March 21.	March 22.	5	111½
Ulua	United Fruit Co.	March 21.	March 22.	155	231
Swiftscout	Swiftsure Oil Transport Co	March 22.		11,602	
Lake Flattery	Panama Railroad Steamship Line.	March 22.		189	
Andromede	Messageries Maritimes	March 22.		27	
Acajutla	Pacific Steam Navigation Co.	March 22.		1,070	

[1] 4 packages. [2] 178 pounds. [3] No cargo discharged. [4] No cargo laded.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective March 11, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.275
Brass, sheet, average	Lb.	.44
Bronze, Tobin, average	Lb.	.31
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $2.00 per barrel at Cristobal, and $1.85 to $2.20 at Balboa; Diesel oil, Balboa only, $2.15 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Campany (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 7 years of operation.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 478.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 19	Sixaola	United Fruit Co	Colombian ports.	March 20	Sixaola	United Fruit Co	New York via Kingston.
March 17	Nueva Espana [23]	S. Garsea	Colon.	March 20	Carrillo	United Fruit Co	Colombian ports.
March 20	San Benito	United Fruit Co	Boston via wayports.	March 20	Benefit [24]	Colon Import & Export Co	Colon.
March 20	Tsad	Hamburg-American Line	Hamburg via wayports.	March 21	San Benito	United Fruit Co	Boston.
March 21	Ulua	United Fruit Co	New York via Cuba and Jamaica.	March 21	Tsad	Hamburg-American Line	Port Limon.
March 22	Camito	Elders & Fyffes, Ltd	Port Limon.	March 22	Camito	Elders & Fyffes, Ltd	Kingston.
March 22	Tulsagas	McAllister Brothers (S. B.)	Sea, for repairs.	March 22	Regulus [25]	French Government	Martinique via wayports.
				March 22	Ulua	United Fruit Co	New York via wayports.

[23] Launch. [24] Schooner. [25] Cruiser.

PORT OF BALBOA.

March 16	Talaralite [1]	West India Oil Co	Talara.	March 20	Atrato [26]	Colombian Transport Co	Buenaventura.
March 17	Atrato [26]	Colombian Transport Co	Buenaventura.	March 20	Rakuyo Maru	Toyo Kisen Kaisha	Valparaiso.
March 19	Rakuyo Maru	Toyo Kisen Kaisha	Hongkong.				
March 22	El Lobo	C. T. Bowring & Co	San Pedro.				
March 21	Gunner	C. O. Polkinghorne	Vancouver.				

[1] Tanker. [26] Motor ship. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., April 2, 1924. No. 34.

Traffic in March.

The number of commercial ships through the Panama Canal in March, 1924, was 429. In addition to commercial vessels there were 13 small launches passing through the Canal on which tolls were paid but which are not taken up in the commercial transits, and 27 transits of Government vessels from which no tolls were collected, making the total transits of all kinds 469.

Tolls for the month aggregated $1,997,125.08 on the 429 commercial transits and $34.95 on the 13 launches, making the total tolls collection for the month $1,997,160.03. The average daily transits on all traffic for the month were 15.13, and the average daily tolls collection on all traffic was $64,424.52.

Detail of the month's traffic segregated by directions, is as follows:

	Vessels.				Tolls.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches.	Totals.
Atlantic to Pacific.	212	7	18	237	$906,718.50	$19.35	$906,737.85
Pacific to Atlantic.	217	6	9	232	1,090,406.58	15.60	1,090,422.18
Totals.....	429	13	27	469	1,997,125.08	34.95	1,997,160.03

In the following tabulation are shown the total and daily average commercial transits and tolls collection thereon for each month of the fiscal year beginning July 1, 1923, and the total transits, tolls collections, and daily average of each for the fiscal year to March 31, 1924. It will be noted that the 3 months since the peak month of December, 1923, each show a slight decline in volume of business, but unless the decline becomes more marked, the close of the fiscal year should show an average of $2,000,000 tolls collections per month and well over 5,000 commercial transits for the year.

Month.	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
July.....	474	$2,124,830.02	15.29	$68,542.90
August.....	454	2,050,656.97	14.65	66,150.22
September.....	413	1,902,453.61	13.77	63,415.12
October.....	427	1,988,607.69	13.77	64,148.63
November.....	436	2,058,188.61	14.53	68,606.29
December.....	506	2,355,729.81	16.32	75,346.12
January.....	476	2,216,855.01	15.34	71,511.45
February.....	418	1,964,155.59	14.41	67,729.50
March.....	429	1,997,125.08	13.84	64,423.39
Totals.....	4,033	18,658,602.39	.....	.....
Daily average, fiscal year.....	.....	.....	14.66	67,849.46

The average amount of tolls paid by each commercial vessel transiting the Canal during March, 1924, was $4,655.30.

Panama Canal Records.

During the time that the Panama Canal has been in operation, from August 15, 1914, to date, the following are records of maximum size of vessels transiting the Canal, together with daily and monthly traffic records, etc.:

Longest vessel to have passed through the Canal, H. M. S. *Renown*, 795 feet, transited the Canal March 30, 1920, and again September 13, 1920. Longest commercial vessel, steamship *Mount Vernon*, 675 feet 4 inches, October 29, 1919.

Ship of greatest tonnage, steamship *America*, 22,622 registered gross tonnage, 13,637 registered net, 16,959 Panama Canal net tonnage, transited the Canal February 6, 1920. H. M. S. *Renown*, 33,379 displacement tonnage, holds the record for displacement tonnage.

Ship of greatest beam, United States battleships *Mississippi* and *New Mexico*, beam of 97 feet $4\frac{1}{2}$ inches; these vessels have made several transits of the Canal. The *Empress of Canada*, which transited the Canal January 17, 1924, has the greatest beam of any freight or passenger vessel passing through the Canal to date, 77.9 feet.

Ship of greatest draft at time of transit, steamship *Heffron*, 35 feet 2 inches, transited the Canal, November 3, 1922.

Ship with largest cargo, steamship *William Rockefeller*, with a cargo of 22,000 tons of fuel oil, transited the Canal, October 27, 1922.

Ship paying greatest amount of tolls, steamship *America*, $16,855, transiting the Canal February 6, 1920.

Lowest unit cost of tolls per ton of cargo carried, 25.78 cents, steamship *Marore*, July 19, 1922.

Largest day's commercial traffic:

Number of vessels: 25, May 25, 1923.
Panama Canal net tonnage: 145,382, May 25, 1923.
Tolls: $136,604.77, May 25, 1923.
Cargo: 163,202 tons, January 14, 1924.

Largest month's commercial traffic:

Number of vessels: 506, December, 1923.
Panama Canal net tonnage: 2,516,491, December, 1923.
Tolls: $2,335,729.81, December, 1923.
Cargo: 2,494,634 tons, December, 1923.

Largest year's commercial traffic:

Number of vessels: 5,037, calendar year 1923.
Panama Canal net tonnage: 24,737,437, calendar year 1923.
Tolls: $22,966,838.18, calendar year 1923.
Cargo: 25,160,545 tons, calendar year 1923.

The term "commercial traffic" is used to include all vessels subject to the payment of tolls, exclusive of small craft under 20 tons; it excludes public vessels of the United States, Panama, and Colombia, which are allowed free transit.

The Canal has been most severely tested when it has been necessary to lock through the Atlantic or Pacific Fleet of the United States Navy, and at the same time handle the current commercial business. The best records for combined traffic, including both commercial and naval vessels, have been: Forty-three vessels in two days in January, 1921; 38 vessels in one day on February 15, 1923; and 122 vessels in 3 days, January 16–18, 1924.

Traffic Prospects.

GENERAL CONDITIONS.

The world's idle tonnage declined by 2,200,000 gross tons during 1923. During the first 11 months of 1923, the sea-borne trade of the United States, excluding oil, was approximately 2,000,000 long tons more than in the same period of 1922. During the first 9 months of 1923, the trade of France increased 4,600,000 metric tons over the same period in 1922. The Board of Trade estimates that British trade was approximately 10 per cent greater in 1923 than in 1922. (Figures quoted from *The Nautical Gazette*).

Figures such as these are evidence of a general revival of maritime trade which must contribute to the growth of traffic through the Panama Canal. The actual increase of vessel and cargo tonnage both at Panama and Suez during 1923 affords additional evidence of improving conditions.

PROPOSED NEW SERVICES, ETC.

Apart from tankers, there has apparently been no further reduction of tonnage employed in the United States intercoastal trade, and several vessels recently withdrawn from liner service have subsequently been chartered to carry northwestern lumber to the Atlantic coast.

Rumors that the United Fruit Co. is contemplating the establishment of a weekly service between San Francisco and Los Angeles and the east coast of Central America have been confirmed.

Circumstantial reports continue to be published concerning the organization of new lines to engage in the Canadian intercoastal trade.

Several lines operating between the Pacific coast of North America and Europe are augmenting or improving their present services.

CALIFORNIA CRUDE OIL.

Cargoes of California crude oil in transit through the Canal averaged only 22,183 tons a day in February, 1924, as compared with 30,329 tons a day in September, 1923, the peak month. This is a decline of 26.8 per cent. In the absence of any recent or conclusive information concerning the probable future production of oil in California, it appears safe to assume that oil cargoes from this source will continue to decline and may reach comparatively low figures before the end of the current calendar year. If this should prove correct, the loss may be partially offset by other tanker traffic. Points on the Pacific now supplied from California may again draw oil from Gulf ports, and increased shipments from Peru to Atlantic ports are a possibility.

NORTHWESTERN LUMBER.

There has been no winter slump in lumber shipments from the northwest. Lumber in transit from the west coast of the United States totaled 104,259 tons in February, and lumber from Canada, 8,445 tons. These figures approximate the monthly averages for 1923. Recent information is to the effect that the mills have more orders from the Atlantic coast than they can ship, and that the business of the spring months will be limited only by the vessel tonnage available. There is good reason to expect that in this important department of the intercoastal trade, new records will be established in 1924.

NORTHWESTERN WHEAT.

Although wheat shipments were unusually light during the fall, it now appears certain that the totals for the current grain year will equal or exceed those of previous seasons. This is due almost entirely to the rapid development of Vancouver as an export terminal for Canadian wheat. From July, 1921, to February, 1922, the Canadian wheat moving through the Panama Canal totaled 30,058 tons, during the corresponding period of 1922–23 it was 227,898 tons, and in 1923–24 it was 415,756 tons. The movement of wheat through Vancouver has been handicapped this year by inadequate storage facilities, and an insufficient number of loading berths, but new elevators and docks are in course of construction, and a great expansion of the trade seems assured.

CHILIAN NITRATES.

Nitrate cargoes in February, aggregating 190,852 tons, were low as compared with 272,998 tons in January, and 272,744 tons in December, but they were well above the average monthly shipments for the calendar year 1923. According to an annual review and forecast of the trade, published by Messrs. Aikmen, Ltd., of London, sales of stocks in Chile for future delivery have been far heavier than last year, and all reports indicate that consumption is expanding and that the demand will be well maintained in both the European and American markets. The number of "oficinas" working in Chile at the beginning of 1924 was 81, as compared with 53 on the same date last year.

GENERAL.

The Panama Canal statistics for all other important commodities, as well as those for the principal trade routes, all point to a normal growth of traffic, and there are no indications of a marked decline except in the case of the California oil trade. Thus far the expansion in other directions has counterbalanced the loss in oil.

Frequency of Transit of Vessels Through The Panama Canal.

During the calendar year 1923, 1,432 individual commercial vessels, representing 20 nationalities, passed through the Panama Canal. The number of transits per individual ship varied from 1 to 32, the 1,432 vessels making a total of 5,037 transits, or an average of 3.52 transits per vessel.

Vessels of United States registry led both in number of individual ships and in the aggregate number of transits, though not in frequency of transit of individual ships; while representing 37 per cent of the individual vessels passing through the Canal they made up 57 per cent of the total transits. Individual British vessels, while practically equal in number to American ships, made up 23 per cent of the total transits.

In frequency of transit of individual vessels, those of Colombian registry led with an average of 12 per vessel, but only 3 ships of this nationality transited the Canal during the year. Considering only those nationalities having 10 or more individual ships passing through the Canal during the year, those of Peruvian registry lead in frequency of transit with an average of 7.50 transits per vessel, while those of Japanese registry used the Canal least frequently, averaging 1.84 transits per vessel.

The following table shows the number of individual ships, the frequency of transit per vessel, and total transits for the year, segregated by nationalities:

Nationality of vessels.	Number of transits per vessel during year.																					Total ships.	Total transits.	Average number of transits.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	21	23	28	32			
British	283	137	34	23	17	8	..	3	2	2	2	2	2	..	..	1	..	1	1	2	1	..	521	1,148	2.18
Chilean	3	..	..	..	..	1	..	1	..	..	..	3	1	..	..	..	..	..	..	..	..	..	9	66	7.33
Colombian	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	36	12.00
Danish	8	12	5	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	66	2.28
Dutch	7	11	7	5	7	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	117	3.00
Ecuadorian	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1.00
Finnish	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	1.00
French	6	9	4	6	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	70	2.59
German	17	14	3	11	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	124	2.48
Greek	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	4.00
Italian	1	2	1	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	39	3.90
Japanese	45	22	12	3	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	86	158	1.84
Jugo-Slavic	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	2.00
Mexican	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1.00
Norwegian	47	9	6	9	5	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	78	160	2.05
Panaman	..	1	1	2	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	6	29	4.67
Peruvian	..	4	1	1	..	..	..	..	..	..	..	..	1	..	1	2	..	..	..	..	..	..	10	75	7.50
Spanish	5	4	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	34	2.43
Swedish	9	3	2	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	34	2.00
United States	90	73	45	53	34	52	43	35	13	13	14	17	16	10	7	6	4	..	..	..	..	..	525	2,868	5.46
Totals	527	303	123	124	74	69	45	41	16	15	16	22	20	10	8	9	4	1	1	2	1	1	1,432	5,037	3.52

From the above it will be seen that 527 vessels, or more than a third of the individual ships using the Canal during the year, made but one transit; that 42 per cent made three or more transits during the year; and that less than 8 per cent made 10 or more transits during the year.

VESSELS MAKING GREATEST NUMBER OF TRANSITS.

The highest number of transits of any vessel during the year was 32, made by the small steamer *Balboa*, 335 net tons, Panama Canal measurement, owned and operated by the Compania Costanera Colombiana, flying the Colombian flag and engaged in the Colombian intercoastal trade. Second in number of transits was the *Laura C. Hall*, 72 net tons, a motor schooner of British registry, owned and operated by the Pacific Metals Corporation, and plying between Buenaventura, Colombia, and Cristobal, C. Z.

Other vessels, with a relative high frequency of transit during the year, were:

The tankship *Chuky*, 4,723 net tons, British registry, which made 21 transits operating between the east coast of Mexico and Chile.

The tankships *David McKelvy*, *Samuel Q. Brown*, *H. M. Storey*, and *W. S. Rheem*, all of United States registry, and making 17 transits each, operating between Los Angeles and North Atlantic ports of the United States.

UNITED STATES VESSELS SHOW INCREASE IN FREQUENCY OF TRANSIT OVER 1922.

A statement was published in THE PANAMA CANAL RECORD of February 7, 1923, showing the frequency of transit of vessels of United States registry during the calendar year 1922. A comparison of the figures shown in that statement with the corresponding figures for 1923 for United States vessels, gives the following:

	1922.	1923.	Per cent of increase.
Individual vessels transiting the Canal	345	525	52.2
Total number of transits	1,288	2,868	122.7
Average number of transits per vessel	3.73	5.46	46.4

PROPORTION OF TRAFFIC BY FREQUENCY.

The following tabulation shows the numbers of vessels making the various frequencies of transit, the percentages which each class formed of the total number of individual vessels (1,432), their aggregate numbers of transits, and their percentages of the total commercial transits (5,037):

Transits during year made by each vessel.	Number of vessels making this number of transits.	Percentage of the individual vessels (1,432).	Total number of transits made by class.	Percentage of total commercial transits (5,037).
1	527	36.80	527	10.46
2	303	21.15	606	12.03
3	123	8.59	369	7.33
4	124	8.66	496	9.86
5	74	5.17	370	7.34
6	69	4.82	414	8.22
7	45	3.14	315	6.25
8	41	2.86	328	6.51
9	16	1.12	144	2.86
10	15	1.05	150	2.98
11	16	1.12	176	3.49
12	22	1.54	264	5.24
13	20	1.39	260	5.16
14	10	.70	140	2.78
15	8	.56	120	2.38
16	9	.63	144	2.86
17	4	.28	68	1.35
19	1	.07	19	.38
21	1	.07	21	.42
23	2	.14	46	.90
28	1	.07	28	.56
32	1	.07	32	.64
Totals	1,432	100.00	5,037	100.00

The vessels making two passages each composed the highest percentage of total transits, 12.03, and those of one transit were next. The 27 vessels each making 15 or more transits aggregated 478 transits, or 9.5 per cent.

PER CENT OF WORLD'S TOTAL VESSELS PASSING THROUGH CANAL.

Including vessels on the Great Lakes, those engaged in short coastwise runs, etc., as well as those employed in the overseas trade, Lloyd's Register for 1923–24 lists 29,246 steamers, motor vessels, and auxiliaries of 100 tons gross and upward. Taking the grand total, it will be seen that approximately 5 per cent of the world's total vessels transited the Canal during the year, omitting the sailing vessels from consideration. The percentage by nationality of the leading maritime countries was as follows:

	Total steamers, motor vessels, and auxiliaries.	Number passing through the Canal in 1923.	Percentage of total.
British	10,164	521	5 1
Danish	614	29	4.7
Dutch	1,051	39	3.7
French	1,659	27	1.6
German	1,745	50	2.9
Italian	1,043	10	1.0
Japanese	2,003	86	4.3
Norwegian	1,669	78	4.7
Spanish	779	14	1.8
Swedish	1,164	17	1.5
United States	4,307	525	12.2
Miscellaneous	3,048	36	1.2
Totals	29,246	1,432	4.9

The combined gross tonnage of the world's 29,246 steamers, motor vessels, and auxiliaries is 62,335,373. The combined gross tonnage of

commercial vessels transiting the Canal during the year 1923, duplicating tonnage where more than one transit was made, was 31,658,095, or equivalent to approximately one-half of the world's tonnage transiting the Canal once during the year.

Executive Order.

Relating to Pardons, Paroles, the Remission of Fines and Forfeitures, and Kindred Subjects.

By virtue of the authority vested in me by Section 7 of the Act of Congress approved August 24, 1912, known as "The Panama Canal Act," as amended by the Act of Congress of September 21, 1922, I hereby establish the following Order for the Canal Zone:

Section 1. The Governor of The Panama Canal is hereby empowered to grant pardons, paroles, and reprieves for offenses against the laws, orders, and regulations of the Canal Zone, and to commute sentences and remit fines and forfeitures. He may establish by order a system for the pardon, parole, reprieve, disposition, or treatment of prisoners, and alter or amend the same from time to time.

Section 2. The Governor by order may establish regulations governing the labor and employment of prisoners and provide awards for their good behavior, and may make regulations upon other matters affecting the welfare of the prisoners and their management in the penal institutions of the Canal Zone, and may alter and amend such regulations from time to time.

Section 3. Where the Governor issues an order for parole of a persón against whom judgment of conviction has been given he shall specify therein the terms and conditions upon which the parole is granted; and if at any time the Governor is satisfied that such person has violated his parole the Governor shall have power to revoke the order of parole and to order that such person shall be committed to serve the full term or unexpired term of the sentence imposed upon him, even though the period of time covered by such sentence may have elapsed before such revocation.

Section 4. The existing rules and regulations upon the subjects mentioned in this Order shall continue in force until altered or amended by the Governor.

Section 5. All Executive Orders heretofore promulgated in conflict with this Order are hereby repealed.

Section 6. This Order shall take effect thirty days after the date hereof.

CALVIN COOLIDGE

THE WHITE HOUSE,
March 5, 1924.

[No. 3968.]

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 29, 1924.

The Executive Secretary has been informed by the Consul General of Ecuador under date of March 19:

"The Santa Clara lighthouse, Lat. 3° 10′ 40″ S., Long. 80° 25′ 29″ W., is again in operation. Interruption was caused by damage from earthquake."

M. L. WALKER,
Acting Governor.

Examination for Surveyor and Junior Engineer.

On Thursday, April 10, 1924, there will be held examination for promotion to the positions of Surveyor and Junior Engineer in The Panama Canal Service. These examinations will be held in the Board Room of the Administration Building, and will begin at 8.30 a. m. These examinations are open to all recorders, surveyors, and draftsmen.

For information concerning this examination, apply to the Assistant Secretary, Local Civil Service Board, Balboa Heights, C. Z. (telephone, Balboa 286).

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 29, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
F. H. Hillman [1]	22	23.55	23	6.20	23	13.43	23	18.03	American...	Standard Oil Co	500.0	68.2	21.0	London	San Francisco.	Ballast		11,225	7,913
Atlantic Maru	23	7.50	23	8.00	23	15.04	23	16.10	Japanese...	Kawasaki Steamship Co	385.0	51.0	23.0	Port Arthur	San Francisco.	(6)	5,510	6,251	4,700
Ucayali	22	16.55	23	11.35	23	18.28	23	23.55	Peruvian...	Peruvian Line	374.7	46.7	18.8	Covenas	Callao	General, cattle	629	4,466	2,405
Sabine Sun [1]	23	13.22	23	13.35	23	21.02	27	11.47	American...	Sun Oil Co	429.3	59.2	18.6	Chester	Los Angeles	Ballast		7,621	5,277
Cadillac [1]	23	13.35	24	6.13	24	14.06	24	15.22	British	Anglo-Saxon Petroleum Co	530.2	66.3	22.2	Avonmouth	Los Angeles	Ballast		12,091	8,737
Willsolo	23	21.58	24	7.02	24	14.57	24	16.00	American...	Williams Steamship Co	435.0	57.0	25.7	New York	Seattle	General	9,000	7,983	5,882
Ajax	23	17.55	24	8.05	24	16.07	24	17.00	British	Alfred Holt & Co	441.0	52.8	25.9	Halifax	Moji	General	6,224	7,032	4,883
William G. Warden [1]	24	0.40	24	9.50	24	17.45	24	18.46	American...	Standard Oil Co	500.0	68 2	18.0	New York	San Pedro	Ballast		10,524	7,600
Agwilake [1]	24	6.15	24	10.22	24	18.41	24	19.45	American...	International Shipping Corp	468.3	62.7	23.0	New York	San Pedro	Ballast		9,802	6,957
Ipswich	24	6.42	24	10.42	24	19.38	24	20.44	American...	United American Line	401.0	54.0	19.0	New York	San Francisco	(7)	4,190	6,616	4,614
Swiftscout [1]	22	19.40	24	13.45	24	21.28	24	22.34	American...	C. D. Mallory & Co	465.0	60.2	19.5	Texas City	San Pedro	Ballast		8,473	6,104
Cerro Azul [1]	25	6.23	25	6.40	25	15.23	25	16.28	American...	Huasteca Petroleum Co	489.5	66.0	21.2	Providence	San Pedro	Ballast		9,398	6,453
Halsey [1]	25	8.30	25	8.40	25	16.24	25	18.25	American...	C. D. Mallory & Co	435.0	56.0	21.0	New York	San Pedro	Ballast		7,643	5,289
Oliva [1]	25	3.05	25	10.30	25	18.07	25	19.10	British	Anglo-Saxon Petroleum Co	412.2	53.0	18.6	Tyne	San Pedro	Ballast		6,110	4,489
Salvador	24	15.30	25	12.53	25	19.36	23	20.30	British	Pacific Steam Navigation Co	215.0	33.5	12.10	Cristobal	Corinto	Ballast		1,270	735
Lake Flattery	22	17.48	26	6.05	26	14.15	26	21.54	American...	Panama Railroad Steamship Line	251.0	43.0	20.7	New York	Guayaquil	General	2,092	2,873	1,776
Artigas	25	23.57	26	6.25	26	13.41	26	14.47	American...	Nawsco Line (S. B.)	390.4	54.2	19.0	Philadelphia	Los Angeles	Gen., coal, steel	2,966	6,204	4,314
Vancolite [1]	25	15.10	26	7.27	26	15.14	26	16.25	British	Imperial Oil Co	500.3	68.0	21.0	New York	San Pedro	Ballast		11,043	7,874
Utacarbon [1]	25	20.28	26	8.30	26	16.55	26	17.45	American...	Union Oil Co	435.0	56.0	20.4	New York	San Pedro	Ballast		7,482	5,209
District of Columbia [1]	25	23.55	26	9.45	26	18.04	26	18.58	American...	Walker & Daly (S. B.)	431.0	59.2	18.2	Philadelphia	San Pedro	Ballast		8,097	5,431
Slavic Prince	26	6.03	26	10.45	26	18.59	27	7.54	British	Prince Line, Ltd	448.5	57.2	27.10	New York	Saigon	General	8,210	9,139	6,759
Tofuku Maru	26	13.40	26	13.45	26	22.24	26	23.44	Japanese...	Kokusai Kisen Kabushiki Kaisha	385.0	51.0	25.0	New York	Kobe	General	5,609	5,919	4,400
Sciota [2]			26	7.30	26	15.08	26		American...	U. S. Navy	149.3	30.0		Cristobal	Balboa	Ballast			
Somme [3]	26	10.25	27	6.00	27	13.35	27	14.55	American...	U. S. Army	448.0	58.0	23.4	New York	San Francisco	Govt. supplies	1,407		
Cardiganshire	26	1.45	27	6.25	27	14.36	27	22.15	British	Royal Mail Steam Packet Co	516.0	62.0	23.3	Rotterdam	Vancouver	General	3,755	11,420	8,385
Gannet [4]	27	6.13	27	6.55	27	13.32			American...	U. S. Navy	180.0	35.6	9.6	Culebra Island	San Diego	Ballast			
Aroostook [5]	27	6.13	27	7.20	27	15.25			American...	U. S. Navy	375.0	52.2	15.0	Culebra Island	San Diego	Ballast			
Ortega	25	10.10	27	7.30	27	17.02	27	18.05	British	Pacific Steam Navigation Co	485.0	56.0	24.6	Liverpool	Valparaiso	General	3,843	8,345	4,998
Robert Luckenbach	26	14.15	27	8.40	27	17.47	27	18.50	American...	Luckenbach Line	445.0	58.0	27.3	Boston	Los Angeles	General	7,000	8,695	6,372
Santa Luisa	26	15.25	27	8.57	27	17.52	27	19.06	American...	Grace Line	360.2	51.6	21.6	New York	Talcahuano	General	2,073	5,694	3,975
Magellan	27	5.35	27	9.43	27	18.14	27	19.22	British	Pacific Steam Navigation Co	461.6	59.3	26.0	Glasgow	Callao	Coal	5,067	8,817	6,062
Truro City	27	6.08	27	10.05	27	18.56	27	20.10	British	U. S. Navigation Co	400.0	54.1	27.0	New York	Adelaide	General	7,600	6,088	4,437
San Juan	19	16.10	27	11.34	27	19.18	28	5.05	American...	Pacific Mail Steamship Co	283.0	37.0	17.0	Cristobal	San Francisco.	General		2,379	1,593
Nevada	27	9.12	27	12.25	27	19.56	27	20.57	French	French Line	436.0	56.0	24.3	Havre	Vancouver	Cement, iron, gen	5,084	7,500	5,298
Mexican	28	6 40	28	7.00	28	14.17	28	18.54	American...	American-Hawaiian Line	472.3	57.2	23.6	New York	Los Angeles	General	6,058	9,258	6,874

[1] Tanker. [2] Tug. [3] Transport. [4] Mine sweeper. [5] Mine layer. [6] Gasoline and kerosene. [7] Iron, steel, lubricating oil, chemical, and general.

Robert E. Hopkins [1]	28	7.32	28	8.00	28	15.00	28	15.58	American	Tidewater Oil Co	424.4	58.2	19.0	Fall River	San Pedro	Ballast		7,333	5,244
Watertown [1]	28	9.20	28	9.35	28	16.39	28	17.39	American	McAllister Brothers (S. B.)	425.0	56.2	19.6	Philadelphia	San Pedro	Ballast		6,706	4,766
Atlanta City	28	6.35	28	11.30	28	18.50	28	19.51	American	Norton Lilly & Co	424.2	56.2	25.7	Philadelphia	Singapore	([8])	8,100	7,611	5,450
Port Wellington	28	6.52	28	12.53	28	20.15	28	23.15	British	Commonwealth & Dom. Line	470.1	60.0	28.11	Glasgow	Bluff	General	7,075	.....	.....
Jason [1]	27	6.28	29	6.15	29	14.45	.....	.....	American	U. S. Navy	514.0	65.0	24.6	Norfolk	San Diego	([9])	4,200	.....	.....
Fred W. Weller [1]	28	14.53	29	7.40	29	15.37	29	16.40	American	Standard Oil Co	500.0	68.0	19.0	New York	San Pedro	Ballast		10,928	7,710
Radnor	28	22.50	29	8.45	29	17.35	29	18.45	British	Commonwealth & Dom. Line	400.0	52.0	22.8	New York	Bluff	General	5,956	.....	.....
Radames	29	6.15	29	10.35	29	18.19	29	20.56	German	Kosmos Line	380.8	47.0	21.0	Hamburg	Corral	General	2,630	4,912	3,428
Brielle	29	0.50	29	12.42	29	19.32	29	20.45	Dutch	Royal Netherlands W. I. Mail	400.0	58.0	23.3	Hamburg	Corral	General	5,500	.....	.....

[1] Tanker. [8] Steel, sulphate, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

[9] Coal and aviation equipment.

Corinthic	22	18.44	23	6.29	23	13.55	23	22.20	British	Shaw, Savill & Albion Co	500.3	63.3	25.0	Wellington	London	General	5,808	12,821	9,507
Lehigh	22	23.04	23	7.20	23	14.51	23	14.51	American	N. Atl. & Western Co. (S. B.)	390.0	54.2	25.0	Portland	New York	Lumber general	5,186	6,142	4,276
Baltic [1]	22	22.45	23	8.21	23	16.37	23	16.37	Danzig	Standard Oil Co. of N. J.	508.0	64.0	28.2	San Pedro	Halifax	Crude oil	13,688	10,550	7,916
Benavon	23	0.30	23	8.37	23	17.10	23	18.10	British	Wm. Thomson & Co	378.0	46.0	22.9	Portland	Limerick	Wheat	5,346	4,218	3,953
Julia Luckenbach	23	1.00	23	9.00	23	17.35	23	17.35	American	Luckenbach Line	436.6	51.2	27.0	Portland	Boston	General, lumber	7,837	8,543	6,402
Point Lobos	22	23.45	23	9.23	23	18.20	24	6.20	American	Swayne & Hoyt	289.0	44.1	19.0	Seattle	New Orleans	([12])	2,300	2,895	1,967
Australien [10]	23	16.45	23	11.12	23	19.18	23	23.30	Danish	Danish East Asiatic Co	410.0	55.2	27.3	Vancouver	Copenhagen	Wheat, general	8,483	7,031	5,338
Pennsylvania [11]	20	3.00	24	6.16	24	15.18	24	16.38	American	U. S. Navy	601.0	97.0	29.0	San Pedro	Culebra Island	.....	.....	.....	.....
Salvador	23	15.15	24	6.40	24	15.30	25	12.53	British	Pacific Steam Navigation Co	225.0	35.4	16.1	Champerico	Cristobal	General	1,926	1,270	735
Hesperos	23	16.30	24	7.18	24	16.45	24	16.45	Norwegian	E. I. Du Pont de Nemurs & Co	389.8	54.1	25.0	Taltal	Wilmington	Nitrate of soda	8,072	5,693	4,230
W. S. Rheem [1]	24	5.10	24	8.10	24	17.53	24	17.53	American	Standard Oil Co. of N. J.	500.0	68.2	30.0	Los Angeles	New York	Crude oil	15,000	11,224	7,860
Commercial Guide	24	7.00	24	8.19	24	18.00	24	18.00	American	Moore & McCormack Co	406.7	55.2	24.4	Portland	New York	Lumber, general	6,500	6,592	4,752
Agwimars [1]	24	8.00	24	9.31	24	18.58	24	18.58	American	International Ship Corporation	429.3	59.2	27.0	Los Angeles	New York	Crude oil	12,000	7,596	5,269
Firmore	24	8.35	24	10.36	24	20.13	24	22.25	American	Ore Steamship Corporation	449.1	57.2	29.0	Cruz Grande	Baltimore	Iron ore	11,900	7,847	5,185
Spectator	24	10.00	24	11.14	24	20.20	24	21.30	British	T. and J. Harrison	385.0	50.0	24.6	Vancouver	London	General	6,142	5,145	3,710
Montana	24	13.00	24	14.10	24	21.45	24	21.45	French	French Line	410.7	50.8	27.3	San Francisco	Havre	([13])	6,030	6,497	4,317
Waimana	24	13.30	24	14.29	24	23.10	25	2.10	British	Shaw, Savill & Albion Co	477.6	63.2	27.0	Dundee	London	([14])	7,064	11,229	8,252
Cape Henlopen [1]	24	5.17	24	15.08	25	0.10	25	0.50	American	Pure Oil Co	434.8	56.2	28.6	San Pedro	Bayonne, N. J.	Crude oil	10,027	7,425	5,262
Bologna	24	14.30	25	6.15	25	14.45	27	3.05	Italian	La Veloce Line	384.9	46.7	20.6	Valparaiso	Genoa	([15])	754	5,531	3,774
Ikala	24	14.35	25	6.51	25	16.00	25	16.45	British	J. H. Welsford & Co	385.0	48.7	23.3	Caleta Colosa	Wilmington	Nitrate of soda	6,559	4,699	3,440
Imlay [1]	24	15.15	25	7.09	25	16.44	25	16.44	American	C. D. Mallory & Co	425.8	57.0	28.10	San Pedro	Boston	Crude oil	10,203	7,218	4,959
Alrich	24	16.00	25	7.45	25	17.45	25	23.30	German	Roland Line	361.7	51.4	24.10	Vancouver	London	General	6,600	5,303	3,855
Golden Gate	24	16.30	25	8.23	25	17.53	27	20.50	American	Golden Gate Steamship Co	318.1	41.3	20.0	Raymond	New York	Lumber	2,664	3,165	2,108
Alden Anderson [1]	24	17.00	25	8.40	25	18.34	25	18.34	American	Associated Oil Co	426.9	54.6	26.3	San Francisco	Fall River	Crude oil	10,000	7,340	5,236
Californian [10]	24	17.15	25	9.30	25	18.55	25	18.55	American	American-Hawaiian Line	445.1	59.8	24.0	Seattle	Boston	General	7,600	8,567	6,020
Canadian Miller	24	19.45	25	10.27	25	19.35	25	20.20	British	Canadian Govt. Mer. Marine	400.3	52.3	15.0	Brisbane	New York	Wool, general	695	5,892	4,186
Erie Maru	24	21.05	25	10.32	25	20.35	25	22.55	Japanese	Koksai Kisen Kaisha	400.0	53.0	24.4	Portland	United King.	Wheat	7,431	5,977	4,305
Santa Olivia	25	4.00	25	10.50	25	21.10	25	21.10	American	Pacific Mail Steamship Co	404.6	53.9	22.0	San Francisco	New York	General	4,008	6,779	4,921
Eurana [1]	25	7.00	25	11.28	25	22.25	25	22.25	American	International Mer. Marine Co	419.5	56.5	25.6	San Francisco	New York	Crude oil	9,100	6,989	4,976
Saint Andre	25	9.00	25	12.57	25	23.55	27	3.45	French	French Line	397.0	50.3	20.4	Valparaiso	Havre	General	6,365	5,917	4,146
Elmpark	25	11.45	25	13.24	26	0.28	26	0.28	British	Greenock, Scotland	409.2	53.5	26.0	Seattle	United King.	Wheat in bulk	7,720	6,565	4,728

[1] Tanker. [10] Motor ship. [11] Dreadnought. [12] Box shooks and general. [13] Barley, coffee, and sugar. [14] General and frozen meat. [15] Ivory nuts and copper.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Robin Adair	25	13.45	25	14.39	26	1.42	26	1.42	American	Seas Shipping Co., Inc	424.8	55.2	25.0	Seattle	New York	(17)	6,238	7,470	5,529
Manuel Arnus	25	7.30	26	6.28	26	14.25	28	6.16	Spanish	Cia Trasatlantica	424.3	56.9	17.7	Valparaiso	Barcelona	General	527	7,732	5,518
Hamburg Maru	25	17.15	26	7.14	26	15.28	26	16.00	Japanese	Osaka Shosen Kaisha	400.0	54.5	19.0	Hongkong	New York	(18)	4,423	6,094	4,301
Handicap	26	6.45	26	8.28	26	17.00	26	17.00	Norwegian	Bruusgaard & Kiosterud	415.3	54.7	24.9	Vancouver	United King	Wheat	8,036	7,296	5,445
Samuel Q. Brown [1]	26	6.48	26	9.02	26	17.30	26	17.30	American	Tidewater Oil Co	424.4	58.2	26.3	San Pedro	Fall River	Crude oil	9,763	7,333	5,246
Ecuador	25	18.45	26	10.04	26	19.04	28	8.10	American	Pacific Mail Steamship Co	380.0	48.7	24.3	San Francisco	Norfolk	(19)	5,166	5,926	4,178
Tuxpanoil [1]	25	22.00	26	10.11	26	19.10	26	19.10	American	McAllister Brothers (S. B.)	431.0	59.2	25.0	San Pedro	Baltimore	Crude oil	9,500	7,862	5,048
Anomia [1]	24	15.55	26	13.22	26	20.57	26	20.58	British	Anglo-Saxon Petroleum Co	400.6	52.3	25.4	San Pedro	Tampico	Ballast		6,097	4,438
Nevadan	26	14.25	26	15.14	26	23.40	27	8.52	American	American-Hawaiian Line	365.6	55.2	28.0	Tacoma	New York	Lumber	5,865	5,671	3,627
Eurana	26	22.00	27	7.26	27	15.15	27	15.15	American	Planet Line	400.0	56.2	26.6	Vancouver	Boston	Lumber	7,550	7,381	5,595
Chincha	27	1.47	27	8.08	27	16.03	27	16.03	American	Planet Line	403.0	54.0	23.0	Everett	Baltimore	Lumber	4,000	6,872	4,973
Hudson	27	10.30	27	11.28	27	20.02	28	1.55	French	French Line	396.0	50.0	22.6	Talcahuano	Havre	General	5,838	5,970	4,230
Katrina Luckenbach	27	11.00	27	12.01	27	19.00	27	19.00	American	Luckenbach Line	446.0	56.1	.....	Portland	Mobile	General	4,337	8,508	6,179
Mary [16]	.....	.....	27	10.20	27	15.21	.....	.....	Danish	W. Pahl	23.0	3.0	2.0	Balboa	Gatun Lake	.....	.....	.....	.....
Shreveport [1]	26	21.04	27	13.11	27	20.08	27	21.08	American	Walker & Daly (S. B.)	435.0	56.0	24.6	San Pedro	New York	Crude oil	9,448	7,411	5,103
Salina	27	13.20	27	14.32	27	22.45	27	22.45	Italian	Navigazione Libera Triestina	403.0	54.0	24.0	Vancouver	Antwerp	Wheat	7,296	5,457	4,000
Orient City	27	13.30	28	6.33	28	14.45	28	15.45	British	St. Just Steamship Co	408.0	53.6	24.0	Vancouver	United King	Wheat	7,702	5,682	3,919
Hawaiian	27	13.50	28	7.12	28	16.15	28	19.45	American	American-Hawaiian Line	406.8	51.1	27.0	N.Westminster	Boston	Lumber	6,004	6,039	4,180
Steel Trader	27	13.55	28	8.16	28	16.38	28	16.38	American	Isthmian Lines	424.2	56.2	24.7	Seattle	New York	Lumber	6,547	7,611	5,450
Agwistar	27	18.00	28	8.23	28	17.18	28	17.18	American	Luckenbach Line	370.0	53.1	24.4	Tacoma, Wash	New York	Copper, lumber	6,100	5,523	4,068
Redman	28	4.35	28	9.47	28	19.00	29	19.45	American	Munson Lines	335.0	46.0	21.6	Everett	Nuevitas	Lumber	2,939	3,967	2,530
Teno	28	8.00	28	10.22	28	19.05	29	4.20	Chilean	United Fruit Co	421.8	56.0	27.0	Valparaiso	New York	General	4,817	7,758	4,672
Montpelier	27	19.35	28	9.35	28	17.55	28	17.55	American	United American Lines	460.0	57.0	25.6	Seattle	Liverpool	General	8,686	6,368	4,161
William Rockefeller [1]	28	15.45	29	6.13	29	14.58	29	14.58	American	Standard Oil Co. of N. J.	554.9	75.3	31.6	San Pedro	New York	Crude oil	18,930	14,785	10,313
Georgian	28	14.25	29	7.09	29	16.00	29	16.00	American	American-Hawaiian Line	368.8	52.2	24.4	Seattle	New York	Lumber	5,850	5,719	4,023
J. N. Pew [1]	29	7.05	29	8.48	29	16.36	29	16.36	American	Sun Oil Co	480.5	66.0	28.0	San Pedro	Philadelphia	Crude oil	13,330	9,494	6,612
R. J. Hanna [1]	29	8.00	29	9.07	29	17.20	19	18.32	American	Standard Oil Co. of California	425.0	56.0	29.6	San Pedro	New York	Crude oil	10,410	7,639	5,206
Radnor	26	15.40	29	10.20	29	19.18	30	13.40	American	Tampa-Interocean S. S. Co. (S.B.)	434.3	57.7	27.0	Hongkong	Boston	(20)	9,788	7,793	7,308
J. R. Gordon	29	8.36	29	10.46	29	18.30	29	18.30	American	Union Sulphur Co	409.0	54.2	23.6	San Pedro	New York	(21)	6,478	6,581	4,784
Almagro	29	9.30	29	11.05	29	20.00	.....	.....	British	Pacific Steam Navigation Co	303.0	43.0	17.0	Callao	New York	General	1,464	2,878	1,714
San Tirso [1]	29	9.50	29	11.22	29	20.13	29	20.10	British	Eagle Oil Transport Co	420.6	54.6	26.0	San Pedro	Tampico	Crude oil	8,796	6,434	4,383
Canadian Cruiser	29	10.05	29	12.49	29	21.15	30	6.43	British	Canadian Govt. Mer. Marine	430.0	56.0	20.11	Lyttleton	New York	(22)	4,100	7,680	5,494
Hampton Roads [1]	29	9.02	29	13.42	29	23.15	30	5.55	American	McAllister Brothers (S. B.)	431.0	59.2	27.0	San Pedro	New York	Fuel oil	10,000	8,093	5,541
Cubore	29	9.50	29	14.10	29	23.55	30	0.05	American	Ore Steamship Corporation	450.6	57.2	29.0	Cruz Grande	Baltimore	Iron ore	10,500	7,956	4,866
Buenos Aires	28	20.00	29	14.56	30	1.15	30	17.45	Swedish	Johnson Line	426.9	56.2	27.0	Seattle	Stockholm	General	8,389	7,591	5,661

[1] Tanker. [16] Launch. [17] Lumber and canned goods. [18] Wool, cotton, tea, beans. [19] Coffee, hides, general. [20] Sugar and Chinese merchandise. [21] Lumber, laths, and shingles. [22] Wool, hides, caesin gum, and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 494, column 2.)

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective April 1, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Official Circular.

Quarters for Silver Employees.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 22, 1924.

CIRCULAR NO. 628–7. (Superseding all circulars of the 628 series.)

1. Housekeeping quarters will be assigned to silver employees when available, on a rental basis in accordance with the following regulations:

APPLICATIONS AND ASSIGNMENTS.

2. Applications for original assignment to quarters, or for transfer, must be made on the form provided for that purpose, addressed to the District Quartermaster and approved by the head of the Department or Division in which the applicant is employed.

3. Applications will be placed on one list in the order in which they are received, and assignments will be made in the same order.

4. Applications for transfer of quarters within a district must be submitted to District Quartermaster on regular form, and will be considered according to the dates of the original applications for quarters.

5. Occupants of quarters within a district will not be permitted to transfer from one apartment to another of the same type except to a corner room. Exceptions to this rule may be made only in meritorious cases by the District Quartermaster.

6. Applications for quarters will be accepted only in the district where employees are working.

7. The wife constitutes the family of an employee and no consideration will be given applications for family quarters for occupancy by other members of a family.

8. Family quarters will be assigned to widow or widower employees having dependent children residing with them, in the same order as to married employees.

9. Applications for family quarters will not be accepted from employees engaged for part time only, as in the evening or during a fractional period of the regular working hours.

10. An applicant on the waiting list for family quarters, when he becomes eligible for assignment, will be given an opportunity to refuse two separate and distinct tenders of quarters. If he does not accept the second tender his application will be cancelled.

11. When an assignment is made under these rules it will stand until the time within which to accept or reject the quarters has expired. When an employee forfeits family quarters through failure to occupy them within the prescribed time, no new application will be accepted within 10 days thereafter.

12. Applications for bachelor quarters or for laborers' barracks must be submitted on forms provided for that purpose to the District Quartermaster and assignments will be made in the order of receipt of applications.

OCCUPATION OF QUARTERS.

13. Employees will be required to accept or reject tender of quarters within 5 days from date of tender, and if no answer is received within 5 days the quarters may be assigned to the next applicant on the 6th day.

14. Quarters assigned may be occupied only by the employee to whom assigned and members of his immediate family, or dependent relatives when specifically authorized.

VACATION OF QUARTERS.

15. Upon termination of service employees will be permitted to retain their quarters until the end of the period for which rent was paid prior to such separation, at which time they must vacate unless for meritorious reason the Chief Quartermaster grants further extension.

16. Family quarters may be held not to exceed 4 months in any service year during the absence on authorized leave of the employee to whom assigned, or his family, or both simultaneously. Rent must be paid in advance the same as if quarters were occupied.

17. An employee going on leave may be permitted to rent his family quarters during his absence to another employee with the approval of the District Quartermaster; but sub-letting of quarters or rental to nonemployees is prohibited.

RENTAL RATES.

18. Monthly rental rates for all quarters will be fixed by the Chief Quartermaster with the approval of the Governor, and a list showing approved rates will be posted at the office of the District Quartermaster.

19. Rent is payable in advance for each month, and will be collected by payroll deduction from employees of The Panama Canal and Panama Railroad to whom quarters are assigned. An extra charge of 35 cents per month is added to the rent for each apartment having connection for electrical appliances, and this charge will be permanent as the removal of such connections will not be permitted.

20. When a tender of family quarters is accepted, rent will commence on the sixth day from the date of tender.

21. In case occupancy begins at any date other than the first of the month, a daily rate equal to one-thirtieth of the monthly rate will be charged for each day the quarters are occupied, except that rental for a fractional part of a monthly rental period during February shall be determined by deducting from the monthly rental one-thirtieth thereof for each day that the quarters were not occupied. Refund of rental for a fractional part of a month will be made only to employees when the quarters are vacated upon transfer or separation from the service.

FUEL, WATER, AND ELECTRIC CURRENT.

22. Fuel will be sold to occupants of silver quarters by the District Quartermaster at established rates payable in advance. Necessary water and electric current will be included in monthly rental rates.

FURNITURE.

23. No furniture is provided for silver family quarters, but necessary furniture is installed in bachelor quarters.

GENERAL REGULATIONS.

24. The apartment occupied and the surrounding premises must be kept in a clean and sanitary condition. Employees and their familes will be required to comply with all sanitary regulations and to conform to the rules governing the occupancy of quarters.

25. Occupants of quarters will be held responsible for any damage beyond ordinary wear and tear to the building or property or any parts thereof by carelessness or neglect on their part, and will be required to reimburse The Panama Canal in full for such damage in an amount equal to the cost of making necessary repairs or replacing the damaged part or parts as determined by the Chief Quartermaster. This will not be so construed as to hold the occupant of quarters responsible for losses ordinarily covered by insurance.

26. Occupants will not be permitted to make any alterations on quarters.

27. Should any of these rules and regulations not be complied with, the employees will be compelled to vacate quarters at once, and no allowance will be made on account of rental paid for the unexpired balance of the month.

M. L. WALKER,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 492.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
March 23	Heredia	United Fruit Co.	New Orleans via Habana.
March 24	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
March 24	Arabia [23]	San Blas Development Co.	Colon.
March 25	Turrialba	United Fruit Co.	New Orleans via Habana.
March 26	Heredia	United Fruit Co.	Bocas del Toro.
March 26	Santa Marta	United Fruit Co.	New York via Kingston.
March 27	Carrillo	United Fruit Co.	Colombian ports.
March 27	Perou	French Line	Havre via wayports.
March 28	Toloa	United Fruit Co.	New York, Cuba and Jamaica.
March 29	San Bruno	United Fruit Co.	Boston via Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
March 23	Heredia	United Fruit Co.	Bocas del Toro.
March 26	Heredia	United Fruit Co.	New Orleans via Habana.
March 27	Carrillo	United Fruit Co.	New York via Kingston.
March 27	Turrialba	United Fruit Co.	New Orleans via wayports.
March 27	Santa Marta	United Fruit Co.	Colombian ports.
March 27	Arabia [23]	San Blas Development Co.	Colon.
March 29	San Bruno	United Fruit Co.	Boston.
March 29	Perou	French Line	Havre via wayports.
March 29	Toloa	United Fruit Co.	New York via wayports.

[23] Motor schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
March 24	Sciyo Maru	Toyo Kisen Kaisha	Valparaiso via Iquique.
March 24	De Lesseps [24]	Pan-American Timber Co.	Panama.
March 27	Frank G. Drum [1]	Associated Oil Co.	Los Angeles.
March 28	Geisha	Enge & Co.	Callao.

Date.	Vessel.	Line.	For—
March 23	El Lobo	C. T. Bowring & Co.	San Pedro.
March 24	Talaralite [1]	West India Oil Co.	Talara.
March 24	De Lesseps [24]	Pan-American Timber Co.	Panama.
March 25	Seiyo Maru	Toyo Kisen Kaisha	Hongkong.
March 28	Frank G. Drum [1]	Associated Oil Co.	La Union.
March 28	Geisha	Enge & Co.	San Francisco.

[1] Tanker. [24] Panaman tug. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., April 9, 1924. No. 35.

Traffic from Canada to Europe.

During the month of March, 1924, 21 vessels with cargoes originating at ports on the west coast of Canada passed through the Canal en route to Europe; these vessels had a combined net tonnage of 100,914 tons, Panama Canal measurement, and carried a total of 162,509 tons of cargo, of which 119,957 tons were wheat. Of the 21 vessels, 11 carried full cargoes of wheat destined for European ports.

This represents the largest volume of traffic over this route since the opening of the Canal, though the aggregate wheat shipments for the month did not equal those for the preceding month.

Relation of Intercoastal Cargo Tonnage to Total Cargo Carried by Vessels of United States Registry Through The Panama Canal.

A study of the cargo tonnage carried by vessels of United States registry passing through The Panama Canal during the past 3 years, segregated between United States intercoastal and foreign commerce, measured in tons of cargo, has increased from a ratio of approximately 1 to 2 during the first quarter of the calendar year 1921, to a ratio of approximately 5 to 1 during the last quarter-year of 1923.

The actual increase in intercoastal tonnage during this period was from 145,372 tons of cargo in January, 1921, to 1,208,637 tons in December, 1923, or an increase of more than 700 per cent. For 1922, the intercoastal cargo tonnage was more than double that for 1921, and for 1923, more than triple that for 1922.

The phenomenal increase in the intercoastal traffic is primarily due to the heavy oil shipments from California, but aside from the oil movement there has been a healthy and consistent increase in general cargo tonnage, which is best shown in the Atlantic-to-Pacific traffic, where the gain in the general cargo movement is not obscured by the development of the oil traffic. During the calendar year 1921, the total westbound cargo in the intercoastal trade was 916,714 tons, with monthly cargo figures varying from a minimum of 54,177 to a maximum of 95,969 tons. During 1923, the westbound cargo totaled 2,978,439 tons in the intercoastal trade, with monthly cargo figures varying from a minimum of 167,895 to a maximum of 323,441 tons per month.

The cargo tonnage, other than United States intercoastal, carried by vessels of United States registry during this 3-year period, showed relatively little fluctuation, the total for 1923 being some 200,000 tons greater than for 1922, and 100,000 tons greater than for 1921.

In the graph below is shown the total cargo tonnage passing through the Panama Canal in vessels of United States registry during the past

3 calendar years, segregated between United States intercoastal traffic and traffic other than intercoastal, the figures representing tons of 2,240 pounds. To the right of the graph is shown the percentage of intercoastal cargo tonnage to the whole, as compared with cargo tonnage other than intercoastal. The graph shows quarterly periods:

(Graph includes only cargo carried in vessels of United States registry.)

	Cargo tons.		Per cent of cargo tonnage.	
	Intercoastal.	Other.	Intercoastal.	Other.
1921:				
1st quarter	425,969	846,741	33.5	66.5
2d quarter	426,918	693,304	38.1	61.9
3d quarter	385,737	694,952	35.7	64.3
4th quarter	554,900	527,387	51.3	48.7
1922:				
1st quarter	679,089	520,587	56.6	43.4
2d quarter	851,118	736,749	53.6	46.4
3d quarter	1,004,909	682,867	59.5	40.5
4th quarter	1,497,253	683,960	68.7	31.3
1923:				
1st quarter	2,158,414	744,020	74.4	25.6
2d quarter	3,538,449	745,284	82.6	17.4
3d quarter	3,783,124	664,245	85.1	14.9
4th quarter	3,581,395	709,815	83.4	16.6

United States intercoastal cargo tonnage.

Cargo tonnage, other than United States intercoastal.

(Cargo tonnage figures above have been taken from monthly distribution of cargo by geographical areas, which gives a better index to the intercoastal cargo movement than the statement of traffic by trade routes.)

The close relation between the increase in the intercoastal cargo tonnage and the growth of mineral oil shipments may be traced in the following tabulation, showing total mineral oil shipments through the Panama Canal from the west coast of the United States, the greater part of which shipments were between United States coastal ports in the intercoastal trade:

TOTAL MINERAL OIL SHIPMENTS FROM WEST COAST OF UNITED STATES THROUGH CANAL.

	Calendar year.		
	1921.	1922.	1923.
	Tons.	*Tons.*	*Tons.*
1st quarter	75,818	26,719	977,537
2d quarter	27,902	57,773	2,602,077
3d quarter	24,324	124,526	2,683,406
4th quarter	30,890	348,551	2,583,968
Yearly totals	158,934	557,569	8,846,988

During the first quarter of the calendar year 1921, the cargo tonnage in the United States intercoastal trade comprised approximately one-eighth of the total cargo tonnage moving through the Canal; at the present time the intercoastal cargo tonnage exceeds the combined cargo tonnage of all other trade routes passing through the Canal.

The following tabulation shows by quarter-year periods the combined cargo tonnage passing through the Canal during the past 3 calendar years, segregated to show the intercoastal cargo tonnage and all cargo tonnage other than United States intercoastal:

	United States intercoastal.	Other than intercoastal.
1921:		
1st quarter	425,959	2,788,551
2d quarter	426,918	1,968,150
3d quarter	385,737	1,917,412
4th quarter	554,900	2,239,368
1922:		
1st quarter	679,089	1,926,372
2d quarter	851,118	2,330,914
3d quarter	1,004,909	2,510,329
4th quarter	1,497,253	2,910,572
1923:		
1st quarter	2,158,414	2,937,722
2d quarter	3,538,449	3,010,225
3d quarter	3,783,124	2,892,115
4th quarter	3,581,395	3,259,101

Apart from the great gain in the intercoastal cargo tonnage, it will be seen that the gain over other trade routes in 1923 was approximately 25 per cent over the preceding year, and 37 per cent over 1921.

Tanker Traffic Through The Panama Canal, March, 1924.

During the month of March, 1924, 132 tank ships transited the Canal, carrying an aggregate of 817,338 tons of mineral oils, an increase of 12 transits and 76,874 tons of cargo over the preceding month, and a decrease of 10 transits and 37,525 tons of cargo as compared with the month of January, 1924.

As compared with the record months for tanker traffic through the Canal, the number of transits was 41 less than the number of tankers passing through the Canal during August, 1923, the peak month in point of transits; and the cargo tonnage showed a decrease of 205,683 tons as compared with September, 1923, the peak month in point of cargo tonnage.

Tanker transits in March, 1924, comprise about 31 per cent of the total transits, about 38 per cent of the Panama Canal net tonnage, paid about 36 per cent of the tolls, and carried about 36 per cent of the total cargo through the Canal during the month.

The following tabulation shows the number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during March, 1924, segregated by nationality of vessels and direction of transit; it also shows the totals for January and February, 1924:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	10	68,323	$49,034.36	19,319
Danzig	1	6,502	5,880.24	.....
United States	52	307,251	223,374.39	7,962
Totals, March, 1924	63	382,076	278,288 99	27,281
Totals, February, 1924	56	343,180	256,114.73	27,261
Totals, January, 1924	66	405,051	295,522.95	21,095
Pacific to Atlantic.				
British	10	65,764	70,603 48	104,148
Danzig	2	16,083	15,018.75	27,330
Dutch	1	4,395	4,392 50	7,300
Norwegian	1	5,520	6,546.25	8,620
United States	55	335,603	345,959.35	642,059
Totals, March, 1924	69	427,365	442,500.33	790,057
Totals, February, 1924	64	390,335	396.733 64	713,203
Totals, January, 1924	76	443,239	456,899.88	833,768

(Continued on page 502)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 5, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Durango [1]	29	20.08	30	6.40	30	13.55	30	14.53	American	C. D. Mallory & Co., Inc.	435.0	56.0	20.0	New York	San Pedro	Ballast		7,643	5,301
Easterner	30	0.40	30	7.18	30	15.34	30	16.59	American	U. S. & A. Line (S. B.)	385.0	51.0	22.9	New York	Brisbane	General, case oil	4,200	5,945	4,561
Agwibay [2]	30	2.40	30	9.28	30	16.25	30	17.40	American	Agwi Steamship Co	468.3	62.7	18.6	New York	San Pedro	Ballast		9,776	6,903
Knoxville City	30	10.45	30	10.55	30	17.42	30	19.21	American	Isthmian Steamship Line	424.2	56.2	25.8	New Orleans	Kobe	(6)	7,310	7,611	5,450
Sugilleneo	30	12.05	30	12.20	30	20.19	1	17.58	American	Transmarine Line	324.0	46.2	22.6	Newark	San Pedro	General	3,500	3,984	2,612
Santa Rosa	30	3.40	31	6.15	31	13.45	31	14.45	American	Pacific Mail Steamship Co	404.6	53.0	24.9	New York	Los Angeles	Pipe, steel, gen	6,519	6,754	4,780
Curlew [2]			31	6.52	31	14.54			American	U. S. Navy				Cristobal	Balboa	(7)			
Vistula [1]	30	15.18	31	7.10	31	14.53	31	15.50	Danzig	Standard Oil Co	499.1	64.1	20.6	Halifax	San Pedro	Ballast		10,604	8,167
Steel re	30	16.05	31	8.27	31	17.02			American	Ore Steamship Corporation	550.3	72.2	19.6	New York	Cruz Grande	Ballast		15,551	4,297
Deroebe [1]	30	22.50	31	9.27	31	17.19	31	23.48	American	Union Oil Co	435.0	56.0	19.6	Bayonne	Los Angeles	Ballast		7,452	5,199
Sun [1]	30	22.40	31	10.50	31	18.54	31	19.56	American	Sun Oil Co	382.0	49.9	17.0	Jacksonville	San Francisco	Ballast		5,020	3,324
Hanley	31	6.52	31	11.00	31	19.04	1	1.47	American	Norton, Lilly & Co	440.0	56.0	28.6	Baltimore	Seattle	General	10,685	8,301	5,995
Herakles	31	10.45	31	12.20	31	20.08	31	21.16	Norwegian	E. I. DuPont de Nemours & Co	389.8	54.1	15.4	Norfolk	Taltal	Ballast		5,680	4,220
Wilhelm [3]			31	6.15	31	8.05			American	U. S. Navy				Cristobal	Gatun Lake	Ballast			
Mobile City	31	21.50	1	6.05	1	14.15	1	15.10	American	Isthmian Steamship Line	395.6	55.0	27.6	Baltimore	Seattle	Steel, general	8,371	7,330	5,242
David McKelvy [1]	1	6.50	1	7.15	1	15.05	1	17.42	American	Tidewater Oil Co	430.0	59.0	20.0	New York	San Pedro	Ballast		7,629	5,393
Rimutaka	1	2.00	1	14.00	1	21.59	1	23.02	British	New Zealand Shipping Co	457.0	58.0	30.3	London	New Plymouth	General	6,680	9,201	6,961
R-23 [4]			1	10.30	2	14.50	2	16.09	American	U. S. Navy	175.0	16.7¾		Cristobal	Balboa	Ballast			
President Monroe	1	8.10	2	6.18	2	15.16	2	16.20	American	Dollar Line	502.1	62.2	21.0	New York	San Francisco	General	1,205	12,023	8,495
Antietam [1]	1	19.35	2	7.49	2	16.48	2	19.10	American	Chas. Kurz & Co	435.6	56.2	22.6	New York	Los Angeles	Ballast		7,426	5,094
Trelevan	2	6.00	2	7.53	2	15.59	2	16.52	British	Hain Steamship Co	397.4	54.9	23.0	New York	Lyttleton	General	4,395	6,102	4,331
Trewinnard	2	6.03	2	9.04	2	16.58	2	17.58	British	Norton, Lilly & Co	472.0	60.0	23.0	New York	Fremantle	Case oil, general	5,321	9,150	6,886
Cedar Branch	2	7.35	2	11.05	2	18.26	2	19.28	British	F. & W. Ritson	390.0	51.0	20.0	London	Valparaiso	General	3,565	4,927	3,597
Roy [3]			2		2	11.45			American	J. A. Walker				Cristobal	Gatun Lake	Unknown		2	2
J. A. Moffett, Jr. [2]	2	17.35	3	6.22	3	13.33	3	14.59	American	Standard Oil Co	499.2	68.1	19.0	New York	Talara	Ballast		11,037	7,995
Mericos H. Whittier [1]	2	17.57	3	6.25	3	14.37	3	15.52	American	Associated Oil Co	435.6	56.2	21.0	Boston	San Pedro	Ballast		7,426	5,128
Tilthorn	2	18.10	3	7.05	3	15.22	3	16.23	Norwegian	Wessel, Duval & Co	420.2	53.9	14.6	Newport News	Antofagasta	Ballast		6,591	4,730
Marore	2	19.30	3	7.10	3	16.32	3	17.35	American	Ore Steamship Corporation	550.3	72.2	20.0	Baltimore	Cruz Grande	Ballast		15,551	4,297
Altair [5]	3	2.05	3	8.25	3	17.30			American	U. S. Navy	410.5½	54.0	21.0	Culebra Island	San Diego	Ballast			
Maple Branch	3	3.50	3	8.25	3	18.30	3	19.44	British	Nautilus Steam Shipping Co	400.0	52.0	18.10	Liverpool	Valparaiso	General	2,100	5,618	4,116
Felix Taussig	3	8.15	3	9.07	3	17.43	3	18.38	American	Munson Steamship Co	395.0	55.0	20.0	Baltimore	Seattle	General	3,480	6,594	4,503
Vittorio Veneto	1	18.15	3	9.20	3	18.49	3	19.55	Italian	La Veloce Line	393.6	49.0	17.3	Genoa	Valparaiso	General	1,352	4,854	3,232
Finland	3	11.08	3	11.45	3	19.35	4	3.10	American	Panama-Pacific Line	560.0	60.0	23.6	New York	San Francisco	General	2,000	13,559	9,016
City of Melbourne	3	11.30	3	14.15	3	20.49	3	21.48	British	Ellerman & Bucknall Line	412.0	55.5	23.8	New York	Otaru	General	6,439	6,799	4,763

[1] Tanker. [2] Tug. [3] Launch. [4] Submarine. [5] Destroyer tender. [6] Cotton, sulphate, tobacco, steel, etc. [7] Towing barge 472.

Tremorvah	3	14.15	3	14.15	3	22.06	3	23.48	British	Hain Steamship Co	400.0	52.3	24.6	Galveston	Geelong	Sulphur	6,438	5,774	4,045
Nora	2	14.10	4	6.00	4	14.30	4	15.40	American	Pan-American Petroleum Co	467.8	62.7	17.2	Tampico	San Pedro	Ballast		9,918	7,363
R-9 [8]			4	6.30	4	13.40			American	U. S. Navy	186.1½	18.0		Cristobal	Balboa	Ballast			
Andrea F. Luckenbach	3	16.35	4	6.20	4	13.54	4	15.00	American	Luckenbach Line	496.0	68.2	27.8	New Orleans	Los Angeles	Pipe, general	12,200	11,487	8,762
Relief [9]	4	4.15	4	7.20	4	15.46			American	U. S. Navy	484.0	61.0	21.0	Culebra Island	Balboa				
Ortolan [10]	4	5.40	4	7.34	4	16.48			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
Beaver [11]	4	5.40	4	7.30	4	15.49			American	U. S. Navy	380.0	47.0	21.0	Culebra Island	Balboa				
Mervine [12]	4	6.45	4	7.45	4	16.32			American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
S-30 [8]	4	5.40	4	7.52	4	16.48			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
Trelyon	3	17.04	4	8.28	4	17.28	4	18.23	British	Hain Steamship Co	400.0	52.4	22.4	New York	Auckland	General	3,450	5,803	4,100
S-31 [8]	4	5.40	4	8.45	4	17.23			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa	Ballast			
S-33 [8]	4	5.40	4	8.45	4	17.23			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa	Ballast			
Pedro Christophersen [13]	3	18.00	4	8.40	4	17.50	5	19.14	Swedish	Johnson Line	360.2	51.7	24.6	Stockholm	Vancouver	Cement, general	6,165	5,281	4,013
S-34 [8]	4	5.40	4	9.00	4	17.46			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
S-35 [8]	4	5.40	4	9.00	4	17.46			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
Melville [14]	4	3.45	4	9.45	4	19.10			American	U. S. Navy	417.0	54.6	21.0	Culebra Island	Balboa				
Kingfisher [10]	4	8.08	4	9.52	4	19.10			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
Tern [10]	4	8.08	4	9.52	4	19.10			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
S-36 [8]	4	5.40	4	9.20	4	18.20			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
S-37 [8]	4	5.40	4	9.20	4	18.20			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
S-39 [8]	4	5.40	4	9.30	4	18.24			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
S-32 [8]	4	5.40	4	9.30	4	18.24			American	U. S. Navy	220.0	21.9	16.0	Culebra Island	Balboa				
S-40 [8]	4	5.40	4	9.30	4	18.24			American	U. S. Navy	220.0	21.0	16.0	Culebra Island	Balboa				
Procyon [15]	4	8.08	4	11.05	4	20.17			American	U. S. Navy	401.0	54.0	24.6	Culebra Island	Balboa				
Brant [10]	4	8.08	4	11.10	4	20.30			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
Partridge [10]	4	8.08	4	11.10	4	20.30			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
Promethus [15]	4	8.08	4	11.28	4	20.42			American	U. S. Navy	466.0	60.0	27.0	Culebra Island	Balboa				
Widgeon [10]	4	9.15	4	11.30	4	20.55			American	U. S. Navy	188.0	37.0	12.0	Culebra Island	Balboa				
Missourian [13]	4	1.10	4	13.15	4	21.25	4	22.14	American	American-Hawaiian Line	445.0	61.0	20.0	Philadelphia	Tacoma	General	5,345	8,567	6,020
Santa Rosalia	4	8.35	4	13.15	4	23.00	5	0.05	American	Isthmian Steamship Line	406.0	52.6	24.2	Mobile	Valparaiso	General, steel	6,546	5,900	4,443
Essequibo	4	6.05	4	13.40	4	23.40	5	1.00	British	Pacific Steam Navigation Co	450.4	57.9	24.10	New York	Valparaiso	General	2,526	9,099	6,117
David Putnam [16]			4		4	11.48			American	U. S. Army				Cristobal	Pedro Miguel	Ballast			
Kanawha [1]	4	18.35	5	6.00	5	13.43			American	U. S. Navy	476.0	58.0		Baytown	San Pedro	Navy oil	7,600		
Commercial Traveler	4	17.00	5	8.30	5	16.51	5	22.00	American	Moore & McCormack, Inc	380.3	53.1	21.8	Guayabal	Vancouver	Sugar	5,250	5,657	4,247
Neches [1]	5	4.10	5	6.18	5	14.53			American	U. S. Navy	476.0	58.0		Culebra Island	Balboa				
California [17]	5	6.48	5	7.20	5	15.50			American	U. S. Navy	624.0	97.3½	32.0	Culebra Island	Balboa				
New Mexico [17]	5	6.50	5	7.25	5	17.50			American	U. S. Navy	624.0	97.4½	32.0	Culebra Island	Balboa				
McDermut [12]	5	4.40	5	8.58	5	18.45			American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Decateur [12]	5	4.40	5	8.58	5	18.45			American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Kellerwald	4	19.00	5	8.42	5	18.06	5	22.02	German	Hamburg-American Line	398.3	53.11	24.0	Hamburg	Corral	General	3,720	6,545	4,483
McCawley [13]	5	5.10	5	9.05	5	19.15			American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa	Ballast			
Sinclair [13]	5	5.10	5	9.05	5	19.15			American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa	Ballast			
Dryden	4	19.45	5	9.40	5	13.44	5	20.00	American	Tampa Interocean Co. (S. B.)	434.3	57.7	27.6	Port Arthur	Shanghai	General	7,705	7,983	5,882
Agwistone [1]	4	20.25	5	10.00	5	19.30	5	20.30	American	International Shipping Corp	499.9	68.1	22.0	New York	Los Angeles	Ballast		10,853	7,804
Arizona [17]	5	6.55	5	10.35	5	21.16			American	U. S. Navy	608.0	97.0½	30.0	Culebra Island	Balboa				
Pennsylvania [17]	5	7.00	5	10.35	5	22.00			American	U. S. Navy	608.0	97.0½	30.0	Culebra Island	Balboa				
Agwimex [1]	5	8.08	5	12.30	5	21.17	5	22.23	American	International Shipping Corp	480.5	66.0	22.0	Baltimore	San Pedro	Ballast		9,394	6,306
Halo [1]	5	9.05	5	12.50	5	21.48	6	4.07	American	Cities Service Corporation	435.0	56.0	21.0	Boston	San Pedro	Ballast		7,434	5,093

[1] Tanker. [8] Submarine. [9] Relief ship. [10] Mine sweeper. [11] Submarine tender. [12] Destroyer. [13] Motor ship. [14] Destroyer tender. [15] Repair ship. [16] Launch. [17] Battleship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Henshaw [18]	5	5.15	5	13.10	5	22.44	....	....	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa	....	....	....	....
Mayer [18]	5	5.15	5	13.10	5	22.44	....	....	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa	....	....	....	....
Tennessee [19]	5	7.00	5	15.20	....	....	....	....	American	U. S. Navy	624.0	97.3½	32.0	Culebra Island	Balboa	....	....	....	....
Maryland [19]	5	7.00	5	16.35	....	....	....	....	American	U. S. Navy	624.0	97.3½	32.0	Culebra Island	Balboa	....	....	....	....
Mississippi [19]	5	7.00	5	18.30	....	....	....	....	American	U. S. Navy	624.0	97.4½	32.0	Culebra Island	Balboa	....	....	....	....

[18] Destroyer. [19] Battleship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Dillwyn [1]	29	15.40	30	6.18	30	14.35	30	14.35	American	C. D. Mallory & Co	435.0	56.0	29.6	San Pedro	New York	Crude oil	8,500	7,441	5,099
Svarten	29	16.10	30	6.51	30	16.00	30	18.00	Swedish	Swedish Transatlantic Co	343.1	49.8	17.6	Auckland	London	Wool	2,888	4,488	3,146
Navarino	29	16.40	30	7.10	30	16.15	30	17.10	British	Scanlan-Moller	400.0	52.0	24.6	Los Vilos	New York	Copper ore	7,546	5,770	4,182
W. E. Hutton [1]	29	23.00	30	7.26	30	16.45	30	16.45	American	Pure Oil Co	435.0	56.0	27.3	Los Angeles	New York	Crude oil	9,649	7,402	5,209
Heluan	30	0.30	30	8.17	30	18.10	30	21.10	German	Kosmos Line	134.5	16.1	24.10	Corral	Hamburg	Nitrate, general	7,031	7,621	5,313
Dixie Arrow [1]	30	4.15	30	8.40	30	18.00	30	18.00	American	Standard Oil Co	468.3	62.7	28.6	Los Angeles	New York	Crude oil	12,216	9,744	7,140
Teesbridge	30	9.10	30	10.08	30	19.00	30	20.00	British	Ardmore Coal & Steamship Co	339.6	47.2	25.0	Iquique	Matanzas	Nitrate, copper	5,757	4,338	3,184
Haimon	30	9.20	30	10.41	30	19.40	1	1.40	German	Roland Line	361.0	44.8	21.2	Salina Cruz	Hamburg	Coffee, sugar	3,800	4,350	3,117
Sudbury	30	11.15	30	12.10	30	20.10	30	20.10	American	United American Lines	384.8	51.2	24.0	San Pedro	New York	General	6,067	5,571	4,033
Seimincle [1]	30	12.15	30	13.55	30	21.22	30	22.45	British	Anglo-American Oil Co	425.0	57.0	27.0	San Pedro	London	Benzine	9,508	7,024	5,010
Agwisea [1]	30	20.00	31	6.08	31	15.10	31	15.10	American	International Shipping Corp	468.3	62.7	28.2	Los Angeles	New York	Crude oil	12,000	9,802	6,961
Jason	30	23.15	31	7.19	31	15.35	....	....	Dutch	Royal Netherlands W. I. Mail	364.4	48.4	18.9	Corral	Hamburg	General	2,134	4,321	3,120
Hoxbar [1]	31	3.00	31	7.45	31	17.05	31	17.05	American	C. D. Mallory & Co	434.8	56.2	27.2	San Pedro	New York	Crude oil	10,000	7,421	5,174
Santa Ana	31	6.00	31	10.00	31	17.37	31	23.15	American	Grace Line	360.0	51.6	24.0	Talcahuano	New York	(22)	4,061	5,776	4,081
Alkmaar	31	8.55	31	10.17	31	18.32	1	2.00	Dutch	Royal Netherlands W. I. Mail	477.2	62.7	26.6	Corral	Hamburg	General	9,360	9505	6,644
Urubamba	31	3.30	31	14.13	31	21.13	6	6.12	Peruvian	Peruvian Line	381.2	26.1	17.0	Callao	Cristobal	General	1,152	4,803	2,951
Cacique	31	13.00	31	14.25	31	21.58	31	21.58	American	Pacific Mail Steamship Co	394.2	52.3	21.3	San Francisco	New York	General	2,816	6,652	4,913
Lewis Luckenbach	31	13.40	1	6.22	1	14.10	1	14.10	American	Luckenbach Line	496.0	68.2	31.0	Seattle	Boston	Lumber, general	10,519	11,487	8,762
Gargoyle [1]	31	6.45	1	7.18	1	15.30	1	15.30	American	Vacuum Oil Co	426.0	57.2	27.5	San Francisco	Philadelphia	Lubricating oil	10,000	7,510	4,989
Stuart Dollar	31	12.35	1	8.27	1	17.00	1	17.00	American	Dollar Line	429.0	55.2	26.2	Manila, P. I.	Portland	General	6,000	7,584	5,538
Victolite [1]	31	23.15	1	8.54	1	18.15	1	18.15	British	Imperial Oil Co., Ltd	500.4	68.2	30.0	Talara	Charleston	Crude oil	15,000	11,049	7,732
Brazil Maru	1	10.10	1	11.17	1	19.25	1	21.00	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Mejillones	New Orleans	Nitrates	8,24	5,915	4,423
Kentuckian	1	11.30	1	12.25	1	20.00	1	20.00	American	American-Hawaiian Line	414.5	53.7	24.6	Seattle	Boston	General	5,028	7,049	4,941
Curlew [20]	....	....	1	12.15	1	20.45	....	....	American	U. S. Navy	183.0	30.0	.....	Balboa	Cristobal	....	....	....	....
Ethan Allen	1	18.30	2	6.17	2	14.50	2	15.40	American	Tampa Interocean Co	439.0	60.2	27.6	Taku Bar	New York	General	10,454	8,987	6,534
Manchuria	2	5.15	2	7.27	2	17.20	2	22.38	American	Panama-Pacific Line	600.0	65.3	30.0	San Francisco	New York	General	7,450	17,044	11,488
R-26 [21]	....	....	2	7.52	2	16.55	....	....	American	U. S. Navy	.....	.....	.....	Balboa	Coco Solo	....	....	....	....
Newport	2	10.35	2	11.37	2	19.50	7	6.08	American	Pacific Mail Steamship Co	326.0	38.2	20.0	Champerico	Cristobal	General, coffee	2,048	3,173	2,163

[1] Tanker. [20] Tug. [21] Submarine. [22] Copper, nitrate, wool, general.

Dominion Miller	2	12.45	2	15.31	2	23.05	2	23.05	British	Furness, Withy & Co	420.0	54.0	26.0	Port Townsend	London	Grain, general	7,900	6,996	5,306
Caberia [23]			2	11.40	2	23.00	2	23.00	Panaman	William Lacher				Balboa	Cristobal				
Lubrico [1]	2	20.30	3	6.13	3	14.55	3	14.55	American	Standard Oil Co. of California	425.0	57.2	28.0	Los Angeles	New York	Crude oil	10,498	7,204	4,829
R-23 [24]			3	6.25	3	15.00			American	U. S. Navy				Balboa	Cristobal				
Walter Jennings [1]	3	4.00	3	7.42	3	15.30	3	15.30	American	Standard Oil Co. of N. J.	499.2	68.1	30.6	San Pedro	New York	Crude oil	16,224	11,037	7,995
H. M. Storey [1]	3	5.00	3	8.14	3	17.50	3	17.50	American	Standard Oil Co. of California	500.0	68.2	30.0	Los Angeles	New York	Crude oil	16,100	11,224	7,849
Port Sydney	3	11.45	3	12.29	3	21.25	3	23.40	British	Commonwealth & Dom. Line	501.3	63.3	27.0	Port Chalmers	London	([26])	7,600	11,857	8,947
Canadian Freighter	3	12.55	3	13.36	3	22.00	4	4.38	British	Canadian Govt. Mer. Marine	400.0	52.4	25.7	Vancouver	Avonmouth	Lumber, grain	6,268	6,224	4,487
La Brea [1]	3	13.45	3	14.29	3	22.50	4	6.53	American	Union Oil Co. of California	435.0	56.2	26.0	San Pedro	Philadelphia	Gasoline	8,000	7,150	4,765
San Grerardo [1]	2	13.00	4	6.49	4	18.40			British	Eagle Oil Transport Co	530 0	68.0	30.6	San Pedro	Liverpool	Fuel oil	16,663	13,427	9,342
Drecht lijk	4	3.00	4	7.12	4	19.21	4	23.55	Dutch	Holland-American Line	485.5	62.3	29.6	Seattle	Rotterdam	Grain, general	10,320	10,703	7,619
Ardenza	4	6.45	4	8.15	4	20.00	5	2.00	British	Pacific Steam Navigation Co	210.0	31.7	14 10	Vancouver	Chatham	Lumber	542	930	463
Charles Fratt [1]	4	7.30	4	8.48	4	20.35	4	20.35	American	Standard Oil Co. of N. J.	500 0	68.0	29.0	San Pedro	New York	Crude oil	15,400	10,313	7,492
Cape Ann [1]	4	9.00	4	10.07	4	21.05	4	21.05	American	Cape Steamship Co	425.8	57.0	27.6	San Pedro	New York	Crude oil	10,000	7,484	5,216
Chas. R. McCormick	4	10.45	4	11.23	4	22.05	4	22.05	American	Chas. R. McCormick S. S. Co	401.4	53.2	24.6	Bellingham	New York	Lumber	6,600	7,082	5,167
T. J. Williams [1]	4	13.12	4	14.25	4	23.55	4	23.55	American	Standard Oil Co. of N. J.	465.4	60.8	27.6	San Pedro	New York	Crude oil	11,900	8,585	6,087
Mecca [23]			4	9.20	4				American	J. A. Walker				Balboa	Gatun Lake				
Narbo	3	22.45	5	6.10	5	17.45	5	17.45	American	Tampa Interocean S.S.Co. (S.B.)	402.6	53.0	25.5	Saigon	New York	Copra, general	7,877	6,579	4,847
Gunner	21	9.00	5	6.20	5	17.45	7	7.12	British	C. O. Polkinghorne	132.3	34.2	13.6	Vancouver	Cristobal	Ballast		314	104
Romsdalshorn	4	15.30	5	6.50	5	19.45	5	21.05	Norwegian	O. G. & I. H. Olsen	420.0	53.9	28.0	Taltal	Colon [25]	Nitrate of soda	10,201	6,592	4,733
Laura C. Hall	4	16.00	5	6.54	5	17.55			British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	Platinum [27]		132	72
Chuky	1	13.00	5	7.18	5	21.09	5	21.00	British	Chile Steamship Co	440.0	56.0	16.0	Tocopilla	Tampico	Ballast		7,691	4,723
Keifuku Maru	4	20.00	5	7.52	5	22 35	5	21.00	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.6	Vancouver	Falmouth [25]	Wheat	7,500	6,213	4,670
Agwipond [1]	5	1.30	5	8.35	5	23.35	5	23 35	American	International Shipping Corp	468.3	62.7	27.6	San Pedro	New York	Crude oil	12,600	9,810	6,965
Santore	4	23.00	5	8.46	6	0.25	6	2.45	American	Ore Steamship Corporation	449.1	57.2	28.5	Cruz Grande	Baltimore	Iron ore	10,800	7,808	5,139
Oklahoma	5	6.40	5	9.30	6	1.15	6	18 12	British	Cie. Gle. Transatlantique	400.3	51.6	24.5	Vancouver	Havre	([28])	7,114	6,000	4,477

[1] Tanker. [23] Launch. [24] Submarine. [25] For orders. [26] Frozen, produce, and general. [27] Vaule $71,127. [28] Wheat, salmon, coffee, wood.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
March 30	Cartago	United Fruit Co	New Orleans via Habana.
March 30	Ulysses [29]	Panama Railroad Steamship Line	Norfolk.
March 31	Coronado	Elders & Fyffes, Ltd	Mobile.
April 1	San Blas	United Fruit Co	Boston via Habana.
April 1	Calamares	United Fruit Co	New York via Habana.
April 2	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.
April 2	Abangarez	United Fruit Co	New Orleans via Habana.
April 2	Cartago	United Fruit Co	Bocas del Toro.
April 2	Metapan	United Fruit Co	New York via Kingston.

*DEPARTURES.

Date.	Vessel.	Line.	For—
March 30	Cartago	United Fruit Co	Bocas del Toro.
April 1	Coronado	Elders & Fyffes, Ltd	Port Limon.
April 1	La Isla [30]	L. J. Vacarro & Bros	Bluefields.
April 2	Cartago	United Fruit Co	New Orleans via Habana.
April 2	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
April 2	Venezuela	Royal Netherlands W. I. Mail	Port Limon.
April 2	Calamares	United Fruit Co	Port Limon.
April 3	Metapan	United Fruit Co	Colombian ports.
April 3	Abangarez	United Fruit Co	New Orleans via wayports.

[29] And barge Darien. [30] Motor schooner.

* Other than ships passing through the Canal.

(Continued on page 510, column 2.)

(Continued from page 497)

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles:				
March, 1924	55	337,431	$240,151.65	.....
February, 1924	49	302,035	220,615.57	8,128
January, 1924	63	387,815	279,992.01	.....
From Los Angeles:				
March, 1924	62	385,190	397,957.31	720,716
February, 1924	59	362,904	371,423.51	678,854
January, 1924	70	415,194	430,324.95	801,083

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended April 7:

Steamships *Ulysses*, bore out H. P. starboard cylinder, and counterbore to suit new ring; install new bull ring; take shoulders off H. P. piston rod and true up crosshead pins, also bore spare brasses to suit; renew sounding tube in No. 8 topside tank; sweep tubes and clean main boilers; patch bulkheads in topside tanks; continue scaling and cement washing topside tanks; repair refrigerator door, etc.; *General W. C. Gorgas*, line up main engine beam pumps and repair as required; make new brass ring for air pump; repair one section of bilge suction pipe to ballast pump, and one section of main bilge pipe in engine room; repair copper steam pipe to fresh water pump; barge *Darien*, repair hand pump, sanitary pump, exhaust line from towing engine and broken pipes in heating system, etc.; U. S. S. *Sapelo*, repair reversing engine, No. 1 main feed pump, No. 3 main feed pump, steam tiller, steam steering engine, and deck under forced draft blower and motor to C. P. O.'s quarters; renew or weld over leaky rivets and cracks in combustion chambers of boilers; rebrick 6 furnaces; rivet bases of two king posts and motor sailer davit; furnish and install two Panama Canal closed chocks amidships, etc.; steamships *Panama*, repair filling line to No. 2 ballast tank and sounding pipe No. 4 hold; manufacture 6 rollers as sample, etc.; *Venezuela*, renew section of pipe in baggage room and section of lead pipe in gent's bath room; repair plumbing; manufacture cap for oil pump in fire room, two rings for telemotor in pilot house and new cap for anchor engine; motor schooner *Laura C. Hall*, rebabbitt 3 pairs of bearings; fit on new bearing to engine and other minor repairs as directed:

Minor repairs—Steamships *Hawaiian*, *Toloa*, and *Radnor*, schooner *Arabia*, U. S. Jr., mine planter *Nones*, and U. S. submarines *O–5* and *O–8*; steamships *Jason*, *Newport*, *Ansaldo San Georgio III*, *San Gerado*, and *Wido*, launch *Capron*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Two Weeks Ending April 5, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Anomia	Anglo-Saxon Petroleum Co.	March 24.	March 26.	6,874	.....
Seiyo Maru	Toyo Kisen Kaisha	March 24.	March 25.	75	79
Ecuador	Pacific Mail Steamship Co.	March 25.	March 26.	104	.....
Manuel Arnus	Spanish Line	March 25.	March 26.	133	.....
Radnor	U. S. Shipping Board	March 26.	March 29.	142	.....
Frank G. Drum	Associated Oil Co.	March 27.	March 27.	9,648	.....
Geisha	Einge & Co.	March 28.	March 28.	175	.....
Buenos Aires	Johnson Line	March 28.	March 29.	700	.....
Coalinga	Union Oil Co.	March 30.	March 31.	10,003	.....
Zarati	Captain Kimball	March 31.	March 31.	10	.....
Ramapo	U. S. Government	March 31.	April 4.	9,660	16
Hagan	U. S. Shipping Board	April 1.	April 2.	11,820	.....
San Gerardo	Eagle Oil Transport Co.	April 2.	April 4.	10,200	.....
Pedro Christophersen	Johnson Line	April 4.	April 4.	843	.....
Atrato	Colombian Transport Co.	April 4.	April 7.	13	150
Evelyn	Grace Line	April 5.	April 6.	2	.....

Commercial Traffic Through the Panama Canal in March, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	89	384,797	484,288	615,069	383,912	$396,749.77	242,341
From United States to South America:							
British	7	27,985	33,147	44,833	28,084	27,254.25	6,703
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	2,572
Danish	2	4,717	5,804	7,433	4,609	5,896.25	3,936
Norwegian	2	6,817	8,953	10,923	6,845	6,446.16	.....
United States	13	47,704	54,745	80,946	47,663	43,900.36	16,332
Totals	25	90,735	107,354	151,445	91,177	87,887.02	29,543
From Europe to South America:							
British	9	38,801	48,573	64,443	38,840	46,916.43	30,396
Danish	1	1,569	1,827	2,355	1,411	1,961.25	94
Dutch	3	11,211	13,675	17,810	11,190	14,013.75	14,014
German	5	16,070	20,799	26,074	16,199	20,087.50	16,429
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,100
French	1	3,566	4,081	5,681	3,600	4,457.50	2,604
Spanish	1	3,017	3,844	5,205	3,226	3,771.25	226
Totals	21	76,928	96,786	125,857	77,171	94,575.18	69,863
From United States to Far East:							
British	4	17,051	23,137	27,072	17,058	21,313.75	27,488
Japanese	6	23,322	28,284	35,163	22,801	28,986.25	29,900
Norwegian	1	3,106	3,838	5,014	3,133	3,882.50	6,050
United States	6	25,392	35,216	41,404	25,250	31,740.00	40,931
Totals	17	68,871	90,475	108,653	68,242	85,922.50	104,369
From Europe to United States:							
British	5	20,167	23,834	32,246	19,836	17,920.20	3,325
Dutch	1	5,776	7,551	9,399	5,814	7,220.00	3,706
French	1	4,089	4,936	5,751	3,555	5,111.25	3,706
German	2	6,182	8,716	10,009	6,196	7,727.50	7,845
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	6,113
United States	3	13,804	17,314	22,342	13,686	12,466.08	.....
Totals	13	52,277	66,251	83,552	51,920	53,268.78	24,695
From United States to Australasia:							
British	8	28,181	40,036	44,881	28,333	35,226.25	40,787
United States	2	8,134	9,041	11,656	8,101	9,978.20	11,518
Totals	10	36,315	49,077	56,537	36,434	45,204.45	52,305
From Europe to Canada:							
British	5	21,336	26,949	33,642	21,178	24,356.22	6,665
French	1	4,953	5,298	5,693	3,499	6,191.25	5,084
Totals	6	26,289	32,247	39,335	24,677	30,547.47	11,749
From Europe to Australasia:							
British	4	19,653	27,359	32,035	19,884	24,566.25	22,268
From Cristobal to Central America:							
British	4	2,548	2,798	4,564	2,556	2,593.92	1,927
From Cristobal to United States:							
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	810
United States	2	2,986	3,756	4,796	2,963	3,222.36	1,620
Totals	3	5,149	6,215	8,200	5,126	5,926.11	2,430
Foreign vessels in ballast, United States intercoastal:							
British	2	17,116	18,625	26,202	16,856	13,571.22	.....
Danish	1	3,858	4,418	5,702	3,583	3,180.96	.....
Totals	3	20,701	23,043	31,904	20,439	16,752.18	.....
From Cristobal to South America:							
British	2	126	144	222	200	157.50	118
From Canada to Australasia:							
British	2	6,470	8,187	10,645	6,569	8,087.50	8,770

ATLANTIC TO PACIFIC—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
South American intercoastal:							
Peruvian	2	2,504	5,364	7,922	3,941	$3,130.00	1,081
From Mexico to South America:							
British	2	8,578	9,554	14,672	8,545	10,722.50	19,319
From Europe to Central America:							
British	1	4,092	4,912	6,548	4,052	3,536.64	.....
German	1	1,867	3,068	3,172	1,854	2,333.75	2,487
Totals	2	5,959	7,980	9,720	5,906	5,870.39	2,487
From United States to Balboa:							
United States	1	5,100	6,087	8,212	5,108	6,375.00	7,962
From Mexico to United States:							
United States	1	5,627	7,492	8,983	5,645	5,394.24	.....
From West Indies to Canada:							
Norwegian	1	2,415	3,029	3,861	2,416	3,018.75	5,200
From South America to Far East:							
Japanese	1	3,590	4,101	5,770	3,547	4,487.50	3,231
From Canada to Far East:							
British	1	4,252	4,883	6,797	4,285	5,315.00	6,224
From United States to Canada:							
United States	1	3,429	4,791	5,568	3,429	4,286.25	7,666
From Canada to United States:							
Danzig	1	6,502	8,167	8,953	5,119	5,880.24	.....
Totals, March, 1924.	212	838,815	1,055,672	1,348,476	836,248	906,718.50	623,548
Totals, March, 1923.	233	919,304	1,141,282	1,444,048	911,594	975,666.25	678,488
Totals, March, 1922.	138	472,020	586,041	724,316	461,154	580,374.55	581,952

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	94	425,553	525,486	673,929	425,161	$530,389.35	873,372
From South America to United States:							
British	6	25,874	28,575	39,435	25,823	31,812.20	43,275
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	4,864
Japanese	2	8,617	9,046	11,704	8,481	10,592.20	16,376
Norwegian	5	13,240	17,183	19,947	12,307	16,465.30	31,834
United States	10	39,360	47,699	65,084	39,296	49,140.15	96,600
Totals	24	90,570	107,175	143,459	89,793	112,358.60	192,949
From South America to Europe:							
British	5	25,727	31,139	41,653	25,681	32,158.75	41,362
Chilean	1	2,235	2,596	3,581	2,253	2,793.75	4,172
Dutch	4	10,636	16,257	17,214	10,610	13,295.00	18,300
French	2	7,883	8,376	10,707	6,673	9,576.00	12,203
German	4	13,611	18,680	22,252	13,665	17,013.75	25,488
Italian	2	4,713	5,864	7,526	4,311	5,889.25	1,301
Spanish	1	4,120	5,518	7,518	4,402	5,150.00	547
Totals	19	68,925	88,430	110,451	67,596	85,876.50	103,373
From Canada to Europe:							
British	12	47,744	60,993	74,797	47,558	59,504.25	96,304
Danish	1	4,223	5,338	6,650	4,247	5,278.75	8,483
French	1	4,613	4,639	5,440	3,892	5,590.80	7,480
German	2	5,737	7,882	9,435	5,647	7,171.25	12,675
Italian	1	4,001	4,000	5,345	3,349	4,800.00	7,297
Japanese	1	4,402	4,434	5,870	4,266	5,320.80	7,098
Norwegian	1	3,031	5,445	5,013	3,028	3,788.75	8,036
United States	2	6,561	8,183	10,400	6,564	8,201.25	15,136
Totals	21	80,312	100,914	122,950	78,491	99,655.85	162,509
From United States to Europe:							
British	5	19,063	24,586	31,464	20,124	23,828.75	42,074
Dutch	1	3,514	4,395	5,789	3,381	4,392.50	7,300
French	1	4,380	4,317	5,351	3,339	5,223.60	6,066
German	1	3,437	3,768	4,336	2,743	4,296.25	5,891
Japanese	1	3,421	4,305	5,467	3,409	4,276.25	7,431
Norwegian	1	5,237	5,520	7,277	5,054	6,546.25	8,620
Spanish	1	2,172	3,451	3,721	2,049	2,715.00	5,180
Swedish	1	3,406	5,661	5,642	4,320	4,257.50	8,389
United States	1	2,839	4,161	4,711	2,814	3,548.75	8,687
Totals	13	47,469	60,164	73,758	47,233	59,084.85	99,638

PACIFIC TO ATLANTIC—Continued.

Route and registry.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered gross.	Registered net.		
From South America to Cristobal:							
British	3	740	766	1,360	802	$903.90	723
Peruvian	3	4,010	8,315	12,666	6,614	5,012.50	3,549
Totals	6	4,750	9,081	14,026	7,416	5,916.40	4,272
From Australasia to United States:							
British	4	14,638	18,752	23,658	14,694	18,297.50	7,386
United States	1	4,309	4,944	6,848	4,280	5,386.25	1,172
Totals	5	18,947	23,696	30,506	18,974	23,683.75	8,558
From United States to Mexico:							
British	5	31,859	36,117	48,464	31,796	38,680.46	57,990
From United States to Canada:							
Danzig	2	12,015	16,083	17,940	10,292	15,018.75	27,330
From Australasia to Europe:							
British	4	26,735	32,380	40,353	25,514	33,418.75	23,647
French	1	4,777	5,472	7,499	4,776	5,971.25	6,311
Swedish	1	2,944	3,146	4,089	3,099	3,680.00	2,888
Totals	6	34,456	40,998	51,941	33,389	43,070.00	32,846
From Central America to Cristobal:							
British	3	1,924	2,147	3,468	1,958	2,405.00	3,239
United States	1	1,654	2,163	2,643	1,654	2,067.50	2,030
Totals	4	3,578	4,310	6,111	3,612	4,472.50	5,269
From Far East to United States:							
Japanese	2	7,325	9,074	10,872	6,610	9,156.25	8,993
United States	1	5,413	5,871	7,700	5,598	6,766.25	9,788
Totals	3	12,738	14,945	18,572	12,208	15,922.50	18,781
From United States to West Indies:							
French [1]	1	.....	.....	.....	.....	5,653.00	.....
United States	1	2,000	2,530	3,286	1,965	2,500.00	3,315
Totals	2	2,000	2,530	3,286	1,965	8,153.00	3,315
From United States to Cristobal:							
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	2,619
United States	1	1,332	1,593	2,153	1,309	1,665.00	1,450
Totals	2	3,495	4,052	5,557	3,472	4,368.75	4,069
From Philippine Islands to United States:							
Japanese	1	4,321	5,716	6,995	4,289	5,401.25	4,641
United States	1	4,710	5,187	6,362	4,766	5,887.50	7,984
Totals	2	9,031	10,903	13,357	9,055	11,288.75	12,625
From United States to South America:							
United States	1	3,688	4,910	5,882	3,659	4,610.00	2,594
From Balboa to Cristobal:							
Panaman	1	26	26	33	26	19.50	.....
From Canada to West Indies:							
British	1	3,188	4,144	5,221	3,189	3,985.00	7,321
From South America to Mexico:							
British	1	4,330	4,831	7,337	4,286	3,478.32	.....
From South America to West Indies:							
British	1	2,745	3,184	3,898	2,546	3,431.25	5,757
From Mexico to Europe:							
German	1	2,277	3,117	3,810	2,355	2,846.25	3,960
From Canada to United States:							
United States	3	11,277	15,311	18,247	11,334	14,096.25	22,396
Totals, March, 1924.	217	873,229	1,080,407	1,378,735	867,847	1,090,406.58	1,648,924
Totals, March, 1923.	176	689,054	846,910	1,088,109	690,625	852,052 19	1,262,440
Totals, March, 1922.	96	314,739	389,770	502,655	314,880	376,352.21	378,137

[1] French cruiser, displacement tonnage, 11,306.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending April 5, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Australien	Danish East Asiatic Co	March 23	March 23	(1)	94
Heredia	United Fruit Co	March 23	March 23	340	235
Salvador	Pacific Steam Navigation Co	March 24	March 25	984	(2)
Gen. W. C. Gorgas	Panama Railroad Steamship Line	March 24		1,894	
Bologna	La Veloce Line	March 25	March 27	62	969
Sainta Andre	French Line	March 25	March 27	75	423
Turrialba	United Fruit Co	March 25	March 27	1,233	82
Heredia	United Fruit Co	March 26	March 26	1	56
Lake Flattery	Panama Railroad Steamship Line		March 26		69
Santa Marta	United Fruit Co	March 26	March 27	139	228
Ecuador	Pacific Mail Steamship Line	March 26	March 28	1,699	462
Santa Luisa	Grace Line	March 26	March 27	(1)	1
San Juan	Pacific Mail Steamship Co		March 27		1,534
Manuel Arnus	Spanish Line	March 26	March 28	192	1,032
Cardiganshire	Pacific Steam Navigation Co	March 26	March 27	185	240
Ortega	Pacific Steam Navigation Co	March 26	March 27	28	156
Nevada	French Line	March 27	March 27	29	1
Hudson	French Line	March 27	March 28	(1)	152
Carrillo	United Fruit Co	March 27	March 27	1½	(3)
Teno	United Fruit Co	March 28	March 29	47	(3)
Perou	French Line	March 28	March 29	270	264
Toloa	United Fruit Co	March 28	March 29	108	455
Almagro	Pacific Steam Navigation Co	March 29		167	
San Bruno	United Fruit Co	March 29	March 29	37	(3)
Bricile	Royal Netherlands W. I. Mail	March 29	March 29	101	25
Buenos Aires	Johnson Line	March 29	March 29	(1)	840
Cartago	United Fruit Co	March 30	March 30	468	468
Santa Rosa	Pacific Mail Steamship Line	March 30	March 31	177	320
Haimon	Roland Line	March 30	April 1	160	532
Urubamba	Peruvian Line	March 31	April 1	1,156	(2)
Jason	Royal Netherlands W. I. Mail	March 31	April 1	253	2,482
Santa Ana	Grace Line	March 31	March 31	(1)	168
Almagro	Pacific Steam Navigation Co		April 1		17
General W. C. Gorgas	Panama Railroad Steamship Line		April 2		866
Calamares	United Fruit Co	April 1	April 2	124	620
Vittorio Veneto	La Veloce Line	April 1	April 3	161	1
San Blas	United Fruit Co	April 1	April 3	10	176
Venezuela	Royal Netherlands W. I. Mail	April 2	April 2	293	(2)
Tsad	Hamburg-American Line	April 2	April 4	65	1,037
Nora	Pan-American Petroleum Co	April 2	April 4	10,000	(2)
Metapan	United Fruit Co	April 2	April 3	341	518
Cartago	United Fruit Co	April 2	April 2	2	(2)
Abangarez	United Fruit Co	April 2	April 3	651	4
Newport	Pacific Mail Steamship Co	April 2		2,055	
Panama	Panama Railroad Steamship Line	April 3		3,491	
Santa Marta	United Fruit Co	April 3	April 3	99	78
Nubian	Leyland Line	April 4		690	
Essequibo	Pacific Steam Navigation Co	April 4	April 4	173	107
San Gerardo	Eagle Oil Transport Co	April 4		6,463	
Venezuela	Royal Netherlands W. I. Mail Co	April 4	April 5	(1)	1,324
Drechtdijk	Holland-American Line	April 4	April 4	(1)	231
Camden	United Fruit Co	April 4		8,888	
Swiftarrow	New England Oil Steamship Co	April 4		7,000	
Honduras	French Line	April 5		139	
Ansaldo San Giorgio I.	Transatlantica Italiana	April 5		91	
Oklahoma	French Line	April 5		6	

[1] No cargo discharged. [2] No cargo laded. [3] 12 packages.

Executive Order.

Concerning Costs and the Taxation Thereof in the District Court and Magistrate Courts of the Panama Canal Zone, and Notices in Probate and Guardianship Proceedings.

By virtue of the authority vested in me by the Panama Canal Act, approved August 24, 1912, and the Act of Congress amendatory thereto, approved September 21, 1922, I hereby establish and prescribe the following rules of practice for the District Court and the Magistrate Courts of the Panama Canal Zone, with relation to costs and the taxation thereof, and notices in probate and guardianship proceedings:

Section 1. Section II of the Executive Order of January 9, 1920, is hereby repealed, and the following is established and prescribed in lieu thereof:

"Section II. The United States of America, the Government of the Canal Zone, and The Panama Canal, or any officer thereof who sues or is sued in his official capacity,

shall not be required to pay any costs for the bringing or defending of an action. Every other plaintiff in a civil case commenced in the District Court, except as hereinafter designated, shall deposit with the Clerk or Assistant Clerk thereof a docket fee of Eight Dollars ($8.00) upon the filing of the complaint. The defendant, or defendants, in said action making appearance therein shall deposit in his or their behalf the sum of Two Dollars ($2.00). An intervenor who is allowed to intervene therein shall deposit Five Dollars ($5.00) upon the filing of the petition of intervention. A plaintiff in a habeas corpus, mandamus, certiorari, or prohibition case shall deposit Three Dollars ($3.00) upon the filing of the complaint, and a defendant therein, if a public officer, shall not be required to make a deposit for appearance therein. Any other defendant shall make a deposit of Two Dollars ($2.00) on entering appearance in such action. Such sum or sums so deposited shall be full compensation for the Clerk or Assistant Clerk for all services performed in any action, except lawful copy fees for furnishing copies of any paper or record therein. Any other plaintiff in a civil case commenced in a Magistrate's Court at the time of commencing the action shall deposit a docket fee of Three Dollars ($3.00). The defendant, or defendants who appear in said action, or an intervenor who intervenes therein, shall deposit a fee of One Dollar ($1.00) at the time of appearance. Such sum or sums so deposited shall be full compensation for all services of the Magistrate in said action; except that lawful copy fees may be charged and collected for furnishing copies of any paper or record therein."

Section 2. Said Executive Order of January 9, 1920, is amended by adding thereto the following sections, to wit:

"Section XV. The party in whose favor judgment is rendered in the District Court and who claims his costs, must within five days after the verdict or notice of the decision of the Court deliver to the Clerk and to the adverse party, or his attorney, a memorandum of the items of his costs and necessary disbursements paid or incurred in the action or proceeding, which memorandum must be verified by the oath of the party, or his attorney or agent, or by the clerk of his attorney, stating that to the best of his knowledge and belief the items are correct and that the disbursements have been necessarily incurred in the action or proceeding. A party dissatisfied with the costs so claimed may, within five days after notice of filing of the bill of costs, file a motion to have the same taxed by the Court or the Judge thereof in said action.

"Section XVI. The costs in the Magistrate Court shall be taxed by the Magistrate without the filing and service of a memorandum of costs as provided in the preceding Section, and upon such information as to Magistrate and Constable costs and other costs and fees and mileage of witnesses as the Magistrate may require.

"Section XVII. The fees for the services of the Clerk or Assistant Clerk of the District Court in probate and guardianship matters shall be as follows:

Where the value of the estate does not exceed $1,000	$3.00
Where the value of the estate exceeds $1,000, and does not exceed $5,000	5.00
Where the value of the estate exceeds $5,000	25.00

Such fees shall be in full of the services of the Clerk or Assistant Clerk in such proceedings, except that they shall be entitled to charge lawful fees for furnishing copies of papers and records therein. The Judge of the District Court shall have the power, in his discretion, in any case where the estate is small and the circumstances warrant, to waive the payment of any fee to the Clerk or Assistant Clerk for services to be performed in such proceedings.

"Section XVIII. It shall be lawful for the United States District Court, or the Judge thereof, to provide by order for posting in three public places within the Division of the Canal Zone where probate or guardianship proceedings are begun or are pending, for a period of not less than ten days, notice of any proceeding in any probate or guardianship matter, including the probate of wills, the appointment of an executor, administrator, or guardian, notice to creditors to file claims, the settlement of final accounts, the distribution of property, and the discharge of executors, administrators, or guardians, and to dispense with newspaper publication of notice in any case. Proof of the posting of such notice, with a copy of the notice so posted attached thereto, shall be made by affidavit by the person posting the same. Where notice is given by publication, the proof of such publication may be established by the certificate of the Clerk or Assistant Clerk of the Court. Such proof, in either case, shall be filed before any order is made by the District Court in such proceeding to which such notice relates.

"Section XIX. The first two clauses of Section 531 of the Code of Civil Procedure for the Canal Zone, reading as follows:

" 'For the complaint or answer, four dollars.

For his own attendance and that of his lawyers, down to and including final judgment, ten dollars.'

and all laws, rules, and regulations of the Canal Zone in conflict herewith are hereby repealed.

"Section XX. This order shall take effect thirty (30) days from this date."

CALVIN COOLIDGE

THE WHITE HOUSE,
March 5, 1924.

[No. 3969.]

Local Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., March 24, 1924.

BALBOA HARBOR.

Beacon 19½.—Established March 1, 1924. Structure: cluster 3 piles, encased lattice wood work, painted white; location: opposite Pier 4, west bank, Canal approach, half way between Beacons 19 and 21; characteristic: electric, flashing white.

Beacon No. 6.—Established March 1, 1924. Structure: cluster of 3 piles, encased lattice wood work, painted white; location: on east bank, opposite Beacon 5, marking turning point from Balboa inner harbor to Canal entrance; characteristic: electric, flashing red.

Buoy 4.—To be established. Location: on line half way between gas buoys 2 and 5, taking the place of spar buoy No. 4, which will be discontinued; characteristic: gas, red, fixed.

GAMBOA.

Beacon 31.—Established March 5, 1924. Structure: 1 pile, painted black, goose-neck fixture; location: opposite south end of Gamboa Bridge, east bank, 150′ from bank and on Canal prism, half way between Beacons 29 and 1; characteristic: electric, white fixed; light showing 6′ above 85′ elevation.

Beacon 32.—Established March 5, 1924. Structure: on pile painted black, with goose-neck fixture; location: half way between Beacons 30 and 2, west bank, 40 feet from Canal prism; characteristic: electric, red fixed; light showing 6′ above 85′ elevation.

ATLANTIC ENTRANCE.

Beacon 3½.—To be established March 25, 1924. Structure: single pile, painted black, with goose-neck fixture; location: east bank, half way between Beacon 3 and Gatun Locks' approach wall; characteristic: electric, white fixed.

Beacon 4½.—To be established March 25, 1924. Structure: single pile, painted black, with goose-neck fixture; location: west bank half way between Beacon 4 and Gatun Locks' approach wall; characteristic: electric, red fixed.

Beacon 2.—Changed from galvanized pipe structure to a single pile structure, with goose-neck fixture.

M. L. WALKER,
Acting Governor.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Postal and Cable Addresses of The Panama Canal.

The postal address is "The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Mail for ships passing through the Canal or touching at either of the terminal stations should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective April 1, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.185
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Location of Patients, and Visiting Hours, at Ancon Hospital.

The following table shows the distribution of patients in the Ancon hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "B:"	
Ward 5, Male, private rooms, and American boys' ward	Daily 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, and American girls' ward	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Sundays, and holidays, 1.30 to 4 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2 to 4.30 p. m. 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.30 to 4.30 p. m.
Ward 17, Colored, children	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White, children	Daily 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.
Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Official Circular.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 1, 1924.

To all concerned—Effective April 1, 1924, and for approximately 30 days during the absence on leave of Mr. R. W. Glaw, Paymaster of The Panama Canal, Mr. C. L. Bryan, Assistant Paymaster, will perform the duties of the Paymaster.

M. L. WALKER,
Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.45 to $2.00 per barrel at Cristobal, and $1.85 to $2.20 at Balboa; Diesel oil, Balboa only, $2.15 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 501.

PORT OF CRISTOBAL.—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
April 2	Tsad	Hamburg-American Line	Puerto Barrios.
April 2	Panama	Panama Railroad Steamship Line.	New York via Haiti.
April 3	Santa Marta	United Fruit Co.	Colombian ports.
April 3	Camden	United Fruit Co.	Houston.
April 4	Venezuela	Royal Netherlands W. I. Mail	Port Limon.
April 4	Nubian	Leyland Line	Liverpool via wayports.
April 5	Coronado	Elders & Fyffes, Ltd.	Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
April 3	Santa Marta	United Fruit Co.	New York via Kingston
April 3	San Blas	United Fruit Co.	Boston via Port Limon.
April 3	Ulysses [31]	Panama Railroad Steamship Line.	Norfolk.
April 4	Tsad	Hamburg-American Line	Puerto Colombia.
April 5	Coronado	Elders & Fyffes, Ltd.	Bristol via Kingston.
April 5	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.

[31] And barge Darien.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
March 30	Coalinga [1]	Union Oil Co.	Port San Luis.
April 1	Hagan [1]	Struthers & Barry (S. B.)	Port San Luis.
April 4	Atrato	Colombian Transport Co.	Buenaventura.

Date.	Vessel.	Line.	For—
March 31	Coalinga [1]	Union Oil Co.	San Pedro.
April 1	Hagan [1]	Struthers & Barry (S. B.)	Port San Luis.

[1] Tanker.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., April 16, 1924. No. 36.

Traffic During the First Fifteen Days of April.

From April 1 to 15, inclusive, 209 commercial vessels and 7 small launches measuring under 20 tons passed through the Canal. Tolls on the 209 commercial vessels amounted to $981,245.50 and on the small launches $40.25 or a total tolls collection for the period of $981,-285.75.

The average daily number of commercial transits during these 15 days was 13.93 and the average daily collection of tolls thereon was $65,416.37. The average daily tolls on all traffic were $65,419.05. These averages indicate a decrease as compared with the daily averages for the fiscal year to April 15, 1924, as may be seen in the tabulation below.

Comparison of the first 9 months of the current fiscal year and the first 15 days of April, 1924, is shown in the following tabulation, with totals for the current fiscal year to April 15, and the daily averages for the same period:

Month.	Total transits.	Total tolls.	Daily average transits.	Daily average tolls.
July	474	$2,124,830.02	15.29	$68,542.99
August	454	2,050,656 97	14.65	66,150.22
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,355,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	[1]1,997,138.83	13.84	64,423.83
April (15 days only)	209	981,245.50	13.93	65,416.37
Totals, fiscal year to April 15, 1924, inclusive	4,242	19,639,861 64	14.63	67,723.66

[1] Previous figures for March are increased by $13.75, collected in April, under supplemental bill against steamship *Port Wellington*, transiting southbound on March 28, 1924.

Rapid Bunkering at Cristobal.

On April 3, 1924, another exceptional bunkering record was made at the Panama Canal's Cristobal coaling plant, when 702 tons of coal were delivered in 40 minutes to the British steamer *Port Sydney* of the Commonwealth and Dominion Line, bound from New Zealand to London. Coaling began at 9.35 p. m. and was completed at 10.15 p. m.

Other bunkering records established from time to time at the Cristobal coaling plant include 1,101 tons delivered in 1 hour and 35 minutes and 1,002 tons delivered in 1 hour and 10 minutes. The details of these and other previous performances were published in Vol. XIV of THE PANAMA CANAL RECORD on pages 249, 261, and 418.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, March, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of North America.[1]	West coast of Central America.	Balboa.[2]	West coast of Mexico.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
North Atlantic ports.	12,461	1,240	40	3,145	5,835	22,721	209,629	338	....	84	.....	.....	210,051	28,586	28,817	9,397	16,031	82,831	9,776	36,607	6,392	52,775	6,000	374,378	60.0
South Atlantic ports.	2,000	.....	.....	.....	.....	2,000	.....	.....	.....	.....	.....	.....	.....	5,167	.....	.....	.....	5,167	.....	.....	.....	.....	.....	7,167	1.3
Gulf ports	1,835	.....	498	18	293	2,644	33,987	.....	.....	.....	7,962	....	41,949	13,450	10,274	.....	168	23,892	.....	.....	.....	.....	.....	68,485	10.9
Totals, U. S.	16,296	1,240	538	3,163	6,128	27,365	243,616	338	....	84	7,962	....	252,000	47,203	39,091	9,397	16,199	111,890	9,776	36,607	6,392	52,775	6,000	450,030	72.2
East Coast, Mexico	19,319	.....	.....	.....	.....	19,319	1,244	.....	.....	.....	.....	.....	1,244	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20,563	3.2
Cristobal, C. Z.[1]	.....	118	....	.....	932	1,050	215	.....	.....	4,357	.....	....	4,572	.....	.....	.....	.....	.....	2,300	.....	6,000	8,300	.....	5,622	0.9
East coast of Canada	.....	.....	.....	.....	.....	.....	.....	94	5,200	.....	.....	.....	5,294	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,300	1.3
West Indies	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,294	0.9
Totals, N. America	35,615	1,358	538	3,163	7,060	47,734	245,169	5,538	....	4,441	7,962	....	263,110	47,203	39,091	9,397	16,199	111,890	12,076	36,607	12,392	61,075	6,000	489,809	78.5
Europe:																									
British Isles	9,350	.....	....	6,205	17,644	33,199	5,948	2,910	....	.....	.....	.....	8,858	.....	.....	.....	.....	.....	18,101	.....	4,500	22,601	.....	64,658	10.4
France	2,604	.....	.....	.....	.....	2,604	1,050	.....	....	.....	.....	.....	1,050	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,654	0.6
Germany	13,554	40	....	39	10,083	23,716	4,845	.....	....	2,622	.....	....	7,467	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31,183	5.0
Holland	3,694	.....	.....	.....	50	3,744	405	.....	.....	.....	.....	.....	405	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,149	0.7
Spain	226	.....	.....	.....	.....	226	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	226	.....
Belgium	.....	.....	.....	.....	3,249	3,249	21,125	.....	.....	.....	.....	.....	21,125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,374	3.9
Norway and Sweden	.....	.....	.....	.....	.....	.....	1,471	.....	.....	.....	.....	.....	1,471	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,471	0.2
Totals, Europe	29,428	40	....	6,244	31,026	66,738	34,844	2,910	....	2,622	.....	....	40,376	.....	.....	.....	.....	.....	18,101	.....	4,500	22,601	.....	129,715	20.8
E. coast of South America	.....	641	....	149	.....	793	.....	.....	.....	.....	.....	.....	.....	3,231	.....	.....	.....	3,231	.....	.....	.....	.....	.....	4,024	0.7
Grand totals	65,043	2,042	538	9,556	38,086	115,265	280,013	8,448	....	7,063	7,962	....	330,486	50,434	39,091	9,397	16,199	115,121	30,177	36,697	16,892	83,676	6,000	623,548	100.0
Per cent of total cargo:																									100.0
March, 1924	10.40	0.30	0.10	1.60	6.10	18.50	44.80	1.40	....	1.20	1.30	....	48.70	8.10	6.30	1.50	2.60	18.50	4.80	5.90	2.70	13.40	0.90	.....	100.0
March, 1923	5.38	0.15	0.32	1.53	5.43	12.80	42.51	0.77	1.98	1.23	0.74	....	47.25	10.10	4.56	0.07	6.81	21.54	6.44	6.69	3.78	16.91	1.50	.....	100.0
March, 1922	8.49	0.10	0.85	1.49	0.33	11.17	30.26	5.94	....	0.59	1.42	0.80	38.92	27.97	8.80	0.25	0.62	37.64	7.93	3.29	.....	11.22	1.04	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, March, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[1]	Total, North America.	British Isles.	Belgium.	France.	Germany.	Holland.	Spain and Portugal.	Europe.[2]	Italy.	Norway and Sweden.	Denmark.	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	119,413	32,768	11,704	163,885	.....	5,949	.....	248	170,082	35,987	689	5,888	28,332	2,312	....	19,034	754	.....	....	92,996	.....	263,078	16.0
Colombia	.....	.....	.....	.....	.....	.....	.....	555	555	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	555	.....
Ecuador	737	.....	.....	737	.....	.....	.....	364	1,101	55	.....	.....	.....	.....	43	1,467	.....	.....	....	1,565	.....	2,666	0.1
Peru	31,692	.....	.....	31,692	.....	.....	.....	3,512	35,204	101	.....	.....	466	.....	....	89	530	.....	....	1,186	17	36,407	2.3
W. coast S. America[3]	1,557	.....	.....	1557	.....	.....	.....	586	2,143	.....	.....	.....	.....	.....	....	1,502	.....	.....	....	1,502	.....	3,645	0.2
Totals, S. America	153,399	32,768	11,704	197,871	.....	5,949	.....	5,265	209,085	36,143	689	5,888	28,798	2,312	43	22,092	1,284	.....	....	97,249	17	306,351	18.6
North America:																							
W. coast of U. S.	867,343	190	10,822	878,355	27,330	4,037	58,012	609	968,343	92,544	955	5,049	2,581	3,650	....	11,304	.....	1,150	....	117,233	2,088	1,087,664	65.9
W. coast of Canada	13,359	.....	.....	13,359	.....	7,321	.....	.....	20,680	51,732	38,388	18,778	1,400	1,000	....	6,888	17,237	4,917	....	140,340	.....	161,020	9.8
W. coast C. America	63	.....	.....	63	.....	2,056	.....	8,819	10,938	156	.....	2,800	4,031	200	....	.....	.....	2,322	....	9,509	.....	20,447	1.3
Hawaii	632	.....	.....	632	.....	.....	.....	.....	632	.....	.....	.....	.....	.....	....	.....	.....	.....	....	.....	.....	632	.....
Totals, N. America	881,397	190	10,822	892,409	27,330	13,414	58,012	9,428	1,000,593	144,432	39,343	26,627	8,012	4,850	....	18,192	17,237	8,389	....	267,082	2,088	1,269,763	77.0
Asia:																							
Philippines	18,301	.....	.....	18,301	.....	.....	.....	.....	18,301	.....	.....	.....	.....	.....	....	.....	.....	.....	....	.....	.....	18,301	1.1
Far East[4]	13,105	.....	.....	13,105	.....	.....	.....	.....	13,105	.....	.....	.....	.....	.....	....	.....	.....	.....	....	.....	.....	13,105	0.8
Totals, Asia	31,406	.....	.....	31,406	.....	.....	.....	.....	31,406	.....	.....	.....	.....	.....	....	.....	.....	.....	....	.....	.....	31,406	1.9
Australasia:																							
Australia	4,458	.....	.....	4,458	.....	.....	.....	.....	4,458	.....	.....	.....	.....	.....	....	.....	.....	.....	....	.....	.....	4,458	0.3
New Zealand	6,384	.....	.....	6,384	.....	.....	.....	.....	6,384	19,251	.....	.....	.....	.....	....	.....	.....	.....	....	19,251	.....	25,635	1.5
Australasia[4]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,311	.....	.....	....	5,000	.....	.....	....	11,311	.....	11,311	0.7
Totals, Aust'asia	10,842	.....	.....	10,842	.....	.....	.....	.....	10,842	19,251	.....	6,311	.....	.....	....	5,000	.....	.....	....	30,562	.....	41,404	2.5
Grand totals	1,077,044	32,958	22,526	1,132,528	27,330	19,363	58,012	14,693	1,251,926	199,826	40,032	38,826	36,810	7,162	43	45,284	18,521	8,389	....	394,893	2,105	1,648,924	100.0
Per cent of total cargo:																							
March, 1924	65.6	2.0	1.1	68.7	1.7	1.1	3.5	0.9	75.9	12.2	2.4	2.3	2.3	0.4	....	2.8	1.1	0.5	....	24.0	0.1	.....	100.0
March, 1923	58.4	7.3	4.7	70.4	.....	0.6	1.4	1.8	74.2	10.1	0.2	0.1	1.0	1.7	0.4	10.4	.....	1.7	....	35.6	0.1	.....	100.0
March, 1922	47.3	0.6	3.6	51.5	0.1	0.3	.....	3.1	54.9	29.8	1.0	3.6	5.5	.....	....	4.6	.....	.....	0.3	44.9	0.2	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 12, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Swiftarrow [1]	4	6.35	6	6.10	6	13.03	6	15.15	American	C. D. Mallory & Co	464.0	60.0	17.6	Texas City	San Pedro	Ballast		8,473	6,050
Urubamba	4	15.26	6	6.12	6	14.26	6	17.05	Peruvian	Peruvian Line	381.2	46.0	18.3	Covenas	Callao	General, cattle	926	4,803	2,951
Percival [2]	5	6.00	6	6.15	6	14.13	12	6.30	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Farragut [2]	5	6.00	6	6.15	6	14.13	12	6.30	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Honduras	5	7.50	6	6.50	6	15.14	6	16.25	French	French Line	387.1	51.4	20.3	Havre	Talcahuano	General	1,713	6,020	4,363
J. F. Burns [2]	5	6.00	6	7.10	6	15.35	12	6.30	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Somers [2]	5	6.00	6	7.10	6	15.35	12	6.30	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Agwismith [1]	5	15.35	6	7.10	6	16.15	6	17.20	American	International Shipping Co	499.9	68.1	21.0	New York	San Pedro	Ballast		10,853	7,736
Venice Maru	5	20.25	6	8.10	6	17.04	6	18.15	Japanese	Kawasaki Dockyard Co	405.0	53.0	24.6	Newcastle	San Francisco	Coke, bricks, iron	6,881	7,025	5,025
Queen Eleanor	5	21.40	6	8.45	6	17.59	6	19.00	British	Commonwealth & Dom. Line	400.3	52.3		New York	Freemantle	General	6,100	5,808	4,054
Idaho [3]	5	7.00	6	10.05	6	20.05	12	9.03	American	U. S. Navy	624.0	97.4½	32.0	Culebra Island	Balboa				
Nevada [3]	5	7.00	6	10.05	6	21.10	12	9.03	American	U. S. Navy	583.0	95.2½	30.0	Culebra Island	Balboa				
F. Q. Barstow [1]	5	21.50	6	11.05	6	19.37	6	20.39	American	Standard Oil Co	500.0	68.2	21.0	New York	San Pedro	Ballast		10,530	7,604
Commercial Spirit	6	3.15	6	11.23	6	21.27	7	1.34	American	Moore & McCormack, Inc	380.0	53.2	16.0	Jacksonville	Oregon	General	1,845	5,659	4,138
Stoddert [2]	5	6.00	6	11.40	6	20.30	12	7.40	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Zeilin [2]	5	6.00	6	11.40	6	20.30	12	7.40	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Sonora	6	6.45	6	11.50	6	21.58	6	23.17	French	French Line	388.0	54.0	22.11	Bordeaux	Vancouver	General	4,480	6,394	4,515
Camden [4]	6	6.10	6	12.05	6	23.12			American	U. S. Navy	389.2	48.0		New York	Balboa	Naval supplies	961		
Arawa	6	6.00	6	14.00	6	22.30	7	13.35	British	Shaw, Savill & Albion	459.5	60.5	28.10	London	Wellington	General	6,500	10,035	7,504
Greylock	6	9.07	6	14.55	6	23.35	7	12.30	American	Seas Shipping Co	430.0	54.3	27.6	New York	San Diego	General	9,094	7,946	5,698
Sailor [5]	4		6		6	16.32			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		2	2
Acajutla	3-22	22.37	7	6.05	7	14.09	7	15.50	British	Pacific Steam Navigation Co	215.0	33.5	16.10	Cristobal	Champerico	General	1,250	1,273	706
Newport	2	19.50	7	6.08	7	14.07	7	17.57	American	Pacific Mail Steamship Co	326.0	38.0	16.8	Cristobal	San Francisco	General	869	3,173	2,163
Feltore	6	13.20	7	6.25	7	15.07	7	16.18	American	Ore Steamship Co	449.1	57.2	20.0	Baltimore	Cruz Grande	Ballast		7,808	5,139
Gunner	5	17.45	7	6.40	7	15.09	9	18.25	British	C. O. Pollinghorn	132.0	34.0	14.0	Cristobal	Balboa	Ballast		314	104
Omaha [6]	5	5.00	7	7.12	7	16.11	12	6.30	American	U. S. Navy	556.0	55.0	15.0	Culebra Island	Balboa				
Agwimoon [1]	6	13.50	7	8.40	7	16.50	7	17.47	American	International Shipping Co	429.0	59.0	20.0	New York	Los Angeles	Ballast		7,695	5,402
Cuyama [1]	6	6.25	7	7.35	7	15.45	12	8.20	American	U. S. Navy	476.0	58.0		Culebra Island	Balboa	Gasoline, fuel oil	7,855		
San Ugon [1]	6	16.40	7	8.52	7	17.05	7	19.12	British	Eagle Oil Transport Co	413.0	53.4	18.0	Rouen	San Pedro	Ballast		5,976	4,069
Westwego [1]	7	6.35	7	10.00	7	18.12			American	Union Petroleum Steamship Co	387.0	51.7	20.0	New York	San Francisco	Ballast		5,387	3,789
Farquhar [2]	5	6.00	7	9.55	7	18.42	2	7.40	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Selfridge [2]	5	6.00	7	9.55	7	18.42	2	7.40	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Edward L. Doheny, Jr. [1]	7	1.55	7	10.14	7	17.44	7	18.47	American	Pan-American Pet. & Transp. Co	467.6	62.7	24.0	Providence	San Pedro	Ballast		9,363	6,874
Japan Arrow [1]	7	4.45	7	11.10	7	19.11	7	20.05	American	Standard Transportation Co	468.3	62.7	20.0	New York	Los Angeles	Ballast		10,084	7,426
Archer	7	1.45	7	11.10	7	19.35	7	20.40	American	Barber Line	440.0	56.0	24.10	New York	Shanghai	Oil, wax, general	7,578	8,315	6,100
Willfaro	7	9.20	7	12.18	7	20.40	8	12.54	American	Williams Line	386.8	52.2	19.6	New York	San Pedro	General	5,000	5,684	4,113

[1] Tanker. [2] Destroyer. [3] Battleship. [4] Sub tender. [5] Launch. [6] Light cruiser.

Kennedy [2]	5	6.00	7	12.30	7	20.10	12	7.26	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Paul Hamilton [2]	5	6.00	7	12.30	7	20.10	12	7.26	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Seattle [7]	5	6.48	7	12.05	7	21.12	12	22.17	American	U. S. Navy	502.0	72.10	27.9	Culebra Island	Balboa				
Emma Maersk [8]	7	10.20	7	14.20	7	22.30	8	4.25	Danish	A. P. Moller & Co	378.0	51.2	21.6	Antwerp	San Francisco	Cement, pig iron	7,405	5,524	4,053
Canadian Skirmisher	7	10.25	7	14.20	8	0.20	8	7.32	British	Canadian Govt. Mer. Marine	400.0	52.5	14.3	Bristol	Vancouver	General, whisky	1,832	6,174	4,323
Kidder [2]	5	6.00	8	6.05	8	13.30	12	7.26	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
LaVallette [2]	5	6.00	8	6.05	8	13.45	12	7.19	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Yarborough [2]	5	6.00	8	6.05	8	13.45	12	7.19	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Sloat [2]	5	6.00	8	6.05	8	14.50	12	7.19	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Wood [2]	5	6.00	8	6.05	8	14.50	12	7.19	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Marcus [2]	5	6.00	8	6.05	8	15.35	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Chase [2]	5	6.00	8	6.05	8	15.35	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
MacDonough [2]	5	6.00	8	7.10	8	16.10	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Farenholt [2]	5	6.00	8	7.10	8	16.10	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Summer [2]	5	6.00	8	7.10	8	16.40	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Melvin [2]	5	6.00	8	7.10	8	16.40	12	7.11	American	U. S. Navy	315.0	31.0	13.0	Culebra Island	Balboa				
Eagle	7	12.00	8	7.40	8	17.05	8	18.10	American	United American Line	410.0	56.0	22.6	Baltimore	Seattle	General	5,271	8,243	6,266
Sesostris	7	14.45	8	8.53	8	17.56	8	21.03	German	Kosmos Line	360.0	50.0	17.6	Hamburg	San Jose	General	1,418	4,979	3,381
Republic	8	1.23	8	9.12	8	18.06	8	20.32	American	Chile Steamship Co	345.1	49.1	16.10	New York	Tocopilla	General	1,644	4,393	3,006
Laura C. Hall [9]	5	17.55	8	8.50	8	18.04	9	10.59	British	Pacific Metals Corporation	81.0	25.0	9.0	Cristobal	Buenaventura	General	17	132	72
J. C. Donnell [1]	8	2.43	8	10.25	8	18.55	8	20.00	American	Atlantic Refining Co	500.0	68.3	21.0	Philadelphia	San Pedro	Ballast		10,435	7,304
Invincible	8	23.25	9	6.30	9	14.33	9	16.30	American	Tampa Interocean Line (S. B.)	440.0	56.0	24.6	Port Arthur	Kobe	General	6,369	8,329	6,157
Toco [1]	9	3.00	9	7.00	9	15.57	9	23.43	British	Chile Steamship Co	440.5	56.1	30.0	Tampico	Tocopilla	Oil	9,830	7,693	4,831
Standard [1]	9	7.02	9	8.55	9	16.53	9	18.00	American	Standard Oil Co	523.0	68.0	20.0	New York	San Pedro	Ballast		12,171	8,782
San Salvador	9	5.50	9	10.15	9	17.40	9	18.40	British	Eagle Oil Transport Co	407.0	52.2	25.4	North Shield	San Pedro	Ballast		7,424	5,077
Yorba Linda	9	13.35	9	14.10	9	21.00	9	22.16	American	General Petroleum Co	435.0	56.0	20.0	Philadelphia	San Pedro	Ballast			
K. I. Luckenbach	9	7.36	9	12.12	9	18.56	10	4.45	American	Luckenbach Line	446.0	56.0	26.3	Boston	Seattle	General	7,000	8,552	6,236
Perene	8	11.05	10	7.03	10	15.20	10	19.02	Peruvian	Peruvian Line	284.0	39.1	19.0	Philadelphia	Callao	Coal, dynamite	2,373	2,168	1,529
Santa Teresa	10	1.35	10	8.20	10	16.07	10	17.02	American	Grace Line	360.2	51.6	23.3	New York	Talcahuano	General	2,795	5,726	4,086
Canadian Challenger	19	8.48	10	9.00	10	16.57	11	3.56	British	Canadian Govt. Mer. Marine	400.0	52.2	20.10	Halifax	Melbourne	General	3,188	6,142	4,354
Mineola	10	5.45	10	9.40	10	18.03	11	7.16	American	N. O. & S. A. Steamship Line	298.6	40.0	20.2	New Orleans	Talcahuano	General	1,916	2,835	1,805
Howick Hall	10	9.04	10	10.20	10	18.50	10	19.51	American	Isthmian Steamship Lines	400.8	51.6	26.4	Baltimore	San Francisco	Steel, tin plates	6,822	6,095	4,381
Orita	10	13.35	11	6.10	11	13.15	11	14.10	British	Pacific Steam Navigation Co	485.4	58.2	23.3	Liverpool	Valparaiso	General	2,689	9,936	6,561
Ohioan	10	22.20	11	6.28	11	14.18	11	18.17	American	American-Hawaiian Line	407.7	53.7	22.8	Philadelphia	Portland	General	4,706	7,112	4,896
J. W. Van Dyke [1]	11	6.05	11	7.30	11	15.07	11	16.08	American	Atlantic Refining Co	435.0	56.0	22.8	Philadelphia	San Pedro	Ballast		7,462	5,118
Sunugenteo	11	3.00	11	7.35	11	15.33	11	16.30	American	Transmarine Corporation	324.0	46.2	22.3	Newark	San Francisco	Structural iron and general	4,009	3,984	2,612
President Harrison	11	7.54	11	8.50	11	16.21	11	21.04	American	Dollar Line	502.1	62.2	24.0	New York	San Francisco	General	2,256	12,031	8,495
Dictator	11	11.20	11	11.40	11	19.09	11	23.50	British	T. & J. Harrison	404.7	52.3	21.0	Liverpool	San Francisco	General	6,094	5,628	4,097
Lautaro [8]	10	13.08	11	12.00	11	19.49	12	3.15	American	Pacific Steam Navigation Co	399.1	52.0	22.7	Hull	Valparaiso	General	5,855	6,759	4,840
Bennekom	11	5.05	11	13.25	11	21.30	11	22.32	Dutch	Royal Netherlands W. I. Mail	440.0	58.0	21.10	Hamburg	Corral	General	5,130	7,849	5,806
Harold Walker [1]	10	23.45	12	6.15	12	14.04	12	15.00	American	Huasteca Petroleum Co	430.0	58.2	25.0	Hull	Seattle	Creosote	8,500	6,973	4,658
W. E. Rheem [1]	11	18.20	12	7.32	12	15.05	12	16.06	American	Standard Oil Co	500.0	68.2	21.0	New York	Los Angeles	Ballast		11,224	7,860
Tatsuno Maru	12	5.55	12	8.16	12	16.18	12	17.12	Japanese	Nippon Yusen Kaisha	445.0	58.0	19.0	New York	Yokohama	General, etc	4,197	8,015	5,716
Baltic [1]	12	6.50	12	9.50	12	17.12	12	18.25	Danzig	Standard Oil Co	509.5	64.1	18.6	Halifax	San Pedro	Ballast		10,550	7,916
Rio Gatun [10]	11		12	9.00	12	12.07			Panaman	B. Rodriquez				Cristobal	Gatun Lake	Unknown		8	7
David Putnam [10]			12	6.00	12				American	U. S. Army				Cristobal	Gatun Lake	Ballast			

[1] Tanker. [7] Cruiser. [8] Motor ship. [9] Motor schooner. [10] Launch.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Evelyn	5	17.00	6	6.13	6	18.40	7	18.00	American	Grace Line	313.6	46.1	22.6	Caldera	New York	Nitrate, general	4,007	3,615	2,560
Mevania [1]	6	6.15	6	7.23	6	19.20	6	19.30	American	C. D. Mallory & Co	425.8	57.0	27.0	San Pedro	New York	Crude oil	10,047	7,485	5,216
Harry Luckenbach	6	6.00	6	7.54	6	19.37	6	19.35	American	Luckenbach Line	448.9	60.2	29.6	Portland	New York	Lumber, general	8,435	9,262	6,853
Agwihavre [1]	6	12.55	7	6.13	7	18.45	7	18.45	American	International Shipping Corp	480.5	66.0	29.0	Los Angeles	Baltimore	Crude oil	12,500	9,294	6,305
Freeport Sulphur No. 5	6	18.10	7	6.38	7	19.02	7	19.02	American	Freeport Sulphur Transport Co.	355.5	52.5	22.0	Tacoma	New York	Lumber	5,750	4,940	3,316
Hessen	6	14.30	7	7.21	7	19.55	7	21.12	German	United American Lines	468.5	58.2	27.6	Portland	London	General, lumber	9,374	9,568	6,680
West Cactus	6	18.30	7	8.05	7	20.33	7	22.20	American	Swayne & Hoyt	410.5	51.0	18.0	San Francisco	Buenos Aires	General	1,513	6,618	4,890
U. S. S. Nitro	6	19.45	7	10.42	7	21.45	12	9.58	American	U. S. Navy	460.0	60.0	20.0	Bremerton	Newport, R. I.	General, stores	1,820	.....	.....
Wido	6	11.45	7	12.50	7	22.55	8	1.35	German	Roland Line	393.4	54.3	26.3	Coronel	Hamburg	([12])	8,156	6,585	4,631
Lebore	7	16.00	8	6.00	8	14.58	8	14.58	American	Ore Steamship Corporation	549.6	72.2	32.8	Cruz Grande	New York	Iron ore	19,700	14,325	4,635
Montrolite [1]	7	15.30	8	6.53	8	15.15	8	16.30	British	Imperial Oil, Ltd	421.4	57.3	27.6	Talara	Charleston	Crude oil	9,400	7,378	4,752
Carolinas	7	17.00	8	7.11	8	16.05	8	16.25	American	Carolina Steamship Corporation	333.8	48.0	22.10	Grays' Harbor	New York	Lumber	4,430	4,171	2,827
Atlantic Sun [1]	7	17.20	8	7.58	8	17.05	8	17.05	American	Sun Oil Co	429.3	59.2	26.0	San Francisco	Jacksonville	Gasoline	9,147	7,567	5,283
Hanover	7	17.10	8	8.40	8	17.15	8	17.15	American	Tampa-Interocean S.S.Co. (S.B.)	434.3	57.7	27.0	Shanghai	New Orleans	([13])	9,565	7,982	5,911
Surichco	7	17.33	8	8.55	8	18.10	8	18.10	American	Transmarine Corporation	324.0	46.2	22.6	Seattle	Port Newark	Lumber, general	4,700	3,984	2,612
Sutermeo	7	22.45	8	9.25	8	18.15	8	18.15	American	Transmarine Corporation	324.0	46.2	22.0	San Francisco	New York	General, lumber	4,000	3,984	2,612
Poseidan	8	1.00	8	10.16	8	19.45	8	20.45	German	Hamburg-American Line	450.7	57.2	27.0	Talcahuano	Hamburg	Nitrates, general	8,900	7,683	5,234
Elisha Walker [1]	8	5.10	8	10.43	8	20.20	9	1.55	American	Pan-American Pet. & Transp. Co	429.3	59.2	27.6	San Pedro	Hamburg	Crude oil	10,000	7,978	5,971
Acme [1]	8	9.30	8	11.24	8	20.05	8	20.05	American	Standard Transportation Co	435.0	56.0	25.0	Los Angeles	New York	Crude oil	9,618	7,165	4,926
Floridian	8	9.41	8	12.00	8	21.15	8	21.15	American	American-Hawaiian Line	415.0	53.7	24.5	Seattle	Boston	General	6,838	7,273	5,105
Willpolo	8	13.45	8	14.30	8	22.57	8	22.57	American	Williams Steamship Lines	386.8	52.2	23.0	Seattle	New York	Lumber, general	6,115	5,680	4,080
Maybashi Maru	8	15.05	9	6.10	9	14.03	9	14.03	Japanese	Nippon Yusen Kaisha	445.0	58.0	19.0	Manila	New York	General	4,775	8,012	5,449
Hagood [1]	9	1.00	9	8.38	9	17.55	9	19.40	American	Cities Service Refining Co	435.6	56.2	28.0	San Pedro	Boston	Crude oil	10,000	7,426	5,094
Birmingham City	9	10.48	9	12.14	9	19.55	9	23.12	American	Isthmian Steamship Lines	395.5	55.0	25.6	Seattle	Baltimore	Lumber, general	6,800	6,886	4,675
King Bleddyn	9	16.45	10	6.22	10	14.20	10	15.45	British	King Line, Ltd	411.5	55.8	28.0	Vancouver	Colon [14]	Wheat in bulk	9,368	6,990	4,334
Tricentrol [1]	9	20.45	10	7 13	10	14.55	10	17.20	British	C. T. Bowring & Co	406.9	52.2	24.0	Los Angeles	Lands End [14]	Gasoline	7,300	6,040	4,326
U. S. S. Camden	6	.....	10	8.47	10	16.00	.....	.....	American	U. S. Navy	388.0	47.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Lagarto [11]	10	8.00	10	9.05	10	18.00	11	14.00	British	Pacific Steam Navigation Co	385.0	52.0	26.3	Talcahuano	Channel [14]	General	6,478	5,656	3,823
Jamaica	10	8.35	10	10.03	10	18.18	.....	.....	British	Pacific Steam Navigation Co	229.0	33.1	12.0	Champerico	Cristobal	General	580	1,187	622
Eastway	9	7.30	10	10.30	10	18.40	10	21.00	British	Williams Brothers	400.0	52.0	24.0	Vancouver	Europe	Wheat	7,700	5,968	4,099
Emidio [1]	9	23.00	10	10.55	10	19.30	10	19.30	American	General Petroleum Co	435.0	56.2	26.11	Los Angeles	Thameshaven	Gasoline	8,500	7,433	5,058
Jacob Luckenbach	10	9.55	10	11.22	10	20.00	10	20.00	American	Luckenbach Line	414.5	53.7	23.0	Portland	Mobile	General	4,000	7,315	5,270
London Shipper	10	5.15	10	12.41	10	21.10	10	21.10	British	Furness, Withy & Co	450.4	58.0	29.6	Vancouver	Glasgow	Grain, general	9,534	8,412	5,854

[1] Tanker. [11] Motor ship. [12] Nitrate, ore, cacao, hides, and general. [13] Sugar, lumber, soya bean oil, licorice root, and general. [14] For orders.

Borgland [11]	10	11.30	10	12.30	10	22.35	10	22.35	Norwegian	Norway-Pacific Line	362.0	51.0	25.0	Vancouver	Christiana	General	6,500	5,274	3,886
Ebro	10	16.00	11	6.20	11	14.05	12	4.05	British	Pacific Steam Navigation Co.	459.3	57.8	26.0	Valparaiso	New York	General	3,261	9,151	6,227
Huallaga	10	15.10	11	6.51	11	15.12	...	.....	Peruvian	Peruvian Line	360.0	44.7	20.0	Callao	Cristobal	General	1,108	4,514	2,386
Jacques Cartier	10	18.33	11	7.30	11	17.05	11	18.05	French	French Line	486.5	61.8	28.6	Vancouver	Havre	General	10,163	10,068	7,083
Silver Shell [1]	10	22.00	11	7.42	11	17.59	11	23.48	American	Asiatic Petroleum Co.	411.6	53.0	24.8	San Francisco	Lands End	Gasoline	7,529	6,213	4,343
Defender	11	4.00	11	8.19	11	17.27	11	17.27	British	Balfour Guthrie Co.	483.0	58.3	28.4	Vancouver	London	General	10,208	8,844	6,144
K. R. Kingsbury [1]	11	3.30	11	8.55	11	18.35	11	18.35	American	Standard Oil Co. of California	440.0	58.2	31.0	San Pedro	New York	Crude oil	11,000	9,033	5,938
Salvador	11	8.40	11	10.06	11	18.5	...	.....	British	Pacific Steam Navigation Co.	225.0	35.4	17.3	Corinto	Cristobal	General, specie	971	1,270	735
Corinto	11	9.00	11	14.55	11	23.2	...	.....	American	Pacific Mail Steamship Co.	261.0	40.0	16.7	San Francisco	Cristobal	General	1,805	2,352	1,549
Bethore	10	21.35	11	16.09	12	13.15	12	13.15	American	Ore Steamship Corporation	550.3	72.2	33.6	Cruz Grande	New York	Iron ore	19,890	15,476	4,354
Remuera	11	19.40	12	6.18	12	13.35	12	13.35	British	New Zealand Steamship Co.	485.0	62.3	24.9	Lyttleton	London	[15]	5,353	11,717	8,751
City of Para	11	17.0	12	7.09	12	15.30	...	.....	Panaman	Pacific Mail Steamship Co.	345.0	38.6	22.0	Champerico	Cristobal	[16]	1,557	3,739	2,459
Cecil County [1]	10	16.58	12	8.12	12	16.30	21	16.30	American	Walker & Daly (S. B.)	431.0	59.2	26.0	Los Angeles	New York	Crude oil	9,778	8,097	5,330
Cape Cod [1]	11	19.15	12	8.45	12	17.40	12	17.40	American	Pure Oil Co.	425.8	57.0	27.0	San Pedro	Bayonne	Crude oil	9,977	7,218	5,184
Mount Berwyn	12	3.30	12	9.34	12	17.50	12	17.50	British	H. D. Moss & Co.	409.3	52.3	26.0	Iquique	Colon [14]	Nitrate of soda	7,670	5,783	3,990
Melville Dollar	12	1.00	12	12.23	12	19.10	12	19.10	American	Dollar Line	429.0	55.0	26.0	Vancouver	Baltimore	General, lumber	8,000	7,581	5,519

[1] Tanker. [15] General, frozen meat, dairy products. [16] Coffee, sugar, hides. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 6	Calamares	United Fruit Co.	Port Limon.	April 6	Nubian	Leyland Line	Kingston.
April 6	Parismina	United Fruit Co.	New Orleans via Habana.	April 6	Camden	United Fruit Co.	Baytown via wayports.
April 7	Bacchus	Royal Netherlands W. I. Mail	Amsterdam via wayports.	April 6	Calamares	United Fruit Co.	New York via Habana.
April 8	Pastores	United Fruit Co.	New York via Habana.	April 6	Parismina	United Fruit Co.	Bocas del Toro.
April 8	Atenas	United Fruit Co.	New Orleans via Habana.	April 7	Bacchus	Royal Netherlands W. I. Mail	Port Limon.
April 9	La Playa	United Fruit Co.	Boston via Habana.	April 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
April 9	Parismina	United Fruit Co.	Bocas del Toro.	April 9	Parismina	United Fruit Co.	New Orleans via Habana.
April 9	Sixaola	United Fruit Co.	New York via Kingston.	April 9	Pastores	United Fruit Co.	Port Limon.
April 10	Metapan	United Fruit Co.	Colombian ports.	April 10	Sixaola	United Fruit Co.	New York via Colombia and Kingston.
April 10	Puerto Rico	French Line	St. Nazaire via wayports.	April 10	Metapan	United Fruit Co.	New York via Kingston.
April 11	Bacchus	Royal Netherlands W. I. Mail	Port Limon.	April 10	Atenas	United Fruit Co.	New Orleans via wayports.
				April 11	La Playa	United Fruit Co.	Boston via Port Limon.
				April 11	Puerto Rico	French Line	St. Nazaire via wayports.

PORT OF BALBOA.

April 10	Gunner	C. O. Polkinghorn	Panama Bay.	April 7	Atrato [11]	Colombian Transport Co.	Buenaventura.
April 10	Almirante [17]	M. Valencia	Panama.	April 10	Gunner	C. O. Polkinghorn	Panama.
				April 11	Almirante [17]	M. Valencia	Chame, Panama.

[17] Schooner.

* Other than ships passing through the Canal.

Return Transit of the Pacific Fleet.

The Pacific Fleet of the U. S. Navy, returning from maneuvers off Culebra Island, passed through the Canal southbound between April 3 and April 8, 1924. There were 67 vessels in the fleet, including 9 battleships, 2 cruisers, 29 destroyers, 11 submarines, 6 minesweepers, 2 submarine tenders, 2 destroyer tenders, 2 repair ships, 3 tankers, and 1 hospital ship.

During the 6 days from April 3 to April 8, inclusive, while the fleet was passing through the Canal, there were also 95 commercial transits and one transit by a Navy collier not included in the fleet, making a total of 163 vessels in 6 days.

The following is a statement of the traffic for each day:

Date.	Fleet.	Commercial.	Other.	Total.
April 3	1	17	.....	18
April 4	23	14	.....	37
April 5	12	15	.....	27
April 6	12	14	.....	26
April 7	7	18	1	26
April 8	12	17	.....	29
Totals	67	95	1	163

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending April 12, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Nitro	U. S. Government	April 6	April 8	6	.....
Hanover	U. S. Shipping Board	April 7	April 7	6	.....
Mayebashi Maru	Nippon Yusen Kaisha	April 8	April 9	150	.....
Borgland	Norway-Pacific Line	April 10	April 10	.....	4
Corinto	Pacific Mail Steamship Co	April 11	April 11	5	.....
Salvador	Pacific Steam Navigation Co	April 11	April 11	2	.....

Examinations for Recorder, Surveyor, and Junior Engineer.

On Thursday, May 1, 1924, promotion examinations will be held in room 314, Administration Building, Balboa Heights, C. Z., covering the positions of recorder, surveyor, and junior engineer.

For information concerning this examination application should be made to the Assistant Secretary, Local Civil Service Board, Balboa Heights, C. Z. (telephone, Balboa 286).

Official Circular.

Accounting for Nonexpendable Property.

THE PANAMA CANAL,
ACCOUNTING DEPARTMENT,
BALBOA HEIGHTS, C. Z., March 26, 1924.

CIRCULAR No. 342:

To all concerned—Test inventories made by this office indicate that articles of nonexpendable property have been purchased locally, and used on the work, without having been taken up on the property records.

Circular No. 656–17, paragraph No. 10, requires that "all items of nonexpendable property purchased either locally or abroad, which are not taken into storehouse stock, shall be invoiced by the Auditor to the division concerned for physical accounting only."

It is therefore requested, that this office be advised by letter, promptly, when an inventory, or other check, indicates that nonexpendable property has been purchased locally or abroad, and has not been taken up on the property record. The letter should show date of purchase, name of party making sale, account to which the purchase should be debited, and authorized nomenclature under which the article should be taken up on the property record, in order that this office can invoice the division concerned for physical accounting only.

ELWYN GREENE,
Auditor, The Panama Canal.

Approved:
M. L. WALKER,
Acting Governor.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., April 23, 1924. No. 37.

Traffic Prospects.

Since the beginning of the year there has been a gradual decline in the volume of cargo moving through the Panama Canal. For the month of January, cargo in transit averaged 78,301 tons a day, for February, 77,365 tons, and for March, 73,305 tons.

A comparison of the cargo in transit during the first quarter of 1924 with the first quarter of 1923, shows the following results:

	Atlantic to Pacific.		Pacific to Atlantic.	
	1924.	1923.	1924.	1923.
Total cargo	1,985,675	1,840,670	4,957,745	3,255,468
Specific trade routes.				
United States intercoastal	686,766	708,084	2,698,928	1,412,323
United States and South America	95,961	72,839	687,922	515,647
Europe and South America	160,126	132,958	372,303	438,980
United States and Far East	436,630	311,685	49,323	72,297
United States and Australasia	141,310	118,189	25,114	22,986
Europe and Australasia	119,756	128,197	80,813	77,189
United States and Europe	100,973	116,381	272,897	194,895
Canada and Europe	60,940	60,448	445,872	290,006

UNITED STATES INTERCOASTAL TRADE.

The important intercoastal trade, it will be noted, shows a slight decline in westbound cargo. No separate figures are available on general eastbound cargo, excluding oil. Generally speaking, the intercoastal trade, with oil excluded, has not expanded during the past year, and its future growth may be slow. Some ground may even be lost to railroad competition. The most encouraging feature at present is the continued strength of the northwest lumber trade. Shipments of lumber from United States Pacific ports, via Panama, totaled 149,467 tons in March, as compared with 104,259 in February, and 109,093 in January. Although the latest trade forecasts are not quite so optimistic as those of last month, there is still good reason to believe that 1924 will establish new records for intercoastal lumber shipments.

WEST COAST OF NORTH AMERICA AND EUROPE.

Very considerable increases over 1923 are registered in shipments from the west coast of the United States and Canada to Europe. In the case of Canada, where the greatest increase is shown, the important item has been wheat. Since last December, Canadian wheat has been moving through Vancouver in unprecedented volume. From July 1, 1923, to March 31, 1923, wheat shipments via Panama from United States Pacific ports totaled 426,131 tons, and from Canadian ports, 267,019 tons. From July 1, 1923, to March 31, 1924, American wheat totaled 255,186 tons, and Canadian wheat 553,630 tons. Total

shipments from both American and Canadian ports in 1923–24 (July to March), have been 808,816 tons, as compared with 693,150 tons in 1922–23. It is reported that much wheat remains for shipment from Vancouver during April and May. Before the opening of next season, new berths and elevators will have been provided at Vancouver, and a further expansion of wheat exports through this port and via Panama to Europe may be anticipated.

SOUTH AMERICAN TRADE.

Exports to South America from both the United States and Europe have been greater in 1924 than in 1923. Return cargoes from South America to the United States also show an increase, but there has been a decrease in cargoes from South America to Europe. Nitrate shipments, the most important single item in South American exports, as far as tonnage is concerned, fell to 115,194 tons in March, as compared with 190,852 tons in February and 272,998 tons in January. Early in the year the nitrate situation seemed especially bright, but the producers have since been alarmed at the increased production and sales of German synthetic nitrate in the European market, and the prospect of the development of an artificial nitrate industry in the United States and possibly Japan. These are factors which may seriously affect future exports from Chile, but it seems improbable that the threatened competition will have immediate serious results. In the meantime, however, shipments have fallen off as noted.

FAR EAST AND AUSTRALASIA.

Cargo moving from the United States to the Far East and to Australasia has been greater than in 1923. The return cargoes in these trades are of minor importance to the Panama Canal, as vessels usually work their way back to the Atlantic via other routes. The temporary stimulation of Far Eastern trade ascribed to the Japanese earthquake is no longer noted. Exports in March from the United States via Panama, to the Far East totaled only 104,369 tons, as compared with 146,352 in February, 185,909 in January, and 203,538 in December, which was the peak month. It is generally assumed that, since immediate and urgent requirements have been filled, Japanese reconstruction will proceed slowly and purchases of foreign material and equipment will be spread over a period of years.

CALIFORNIA CRUDE OIL.

California crude oil contributed 707,636 cargo tons to Panama Canal traffic in March. This is at the rate of 22,827 tons a day, as compared with 22,183 tons a day in February, and 30,329 tons a day in September, 1923, the peak month. A further decline of crude oil shipments from California still seems probable.

GENERAL.

There is nothing in the present situation to support a prediction of increased traffic through the Canal in the immediate future, and it is possible that the present figures may not be maintained during the remaining months of the fiscal year. On the other hand, the shrinkage, if it develops, should not be great.

Service to Shipping by the Commissary Division of the Panama Canal.

The Commissary Division of The Panama Canal, which was organized primarily to supply the various needs of the employees of the United States Government in the Canal Zone and their families, is also prepared to furnish stores of every description to ships in transit, and has engaged in a general ship chandlery business since the Canal was opened to navigation.

The master of a vessel arriving at either Cristobal or Balboa can give his order to the boarding officer from the Commissary price list and continue on through the Canal with the assurance that upon arrival at the opposite terminal the supplies will be delivered alongside from a special tug without any delay to the ship. The ship's laundry can also be sent ashore at either end of the Canal, and it will be returned as soon as the ship arrives at the other side of the Isthmus.

This service, developed during 10 years of operation, is prompt and efficient; supplies furnished are of standard quality, and prices are moderate; all goods are carefully inspected before shipment to insure full weight and measure and first-class condition.

The principal steamship lines and agencies of the world are on the mailing list of the Commissary Division and regularly receive price lists and other bulletins. The manufacturing plants and warehouses of the Division are open to inspection, for which arrangements can be made at any time upon application to the General Manager at Cristobal.

Quick Delivery of Supplies.

The Commissary Division of The Panama Canal made delivery of 2 tons of supplies in 33 minutes, for the steamship *City of Melbourne* on April 3.

An order, totaling approximately 2 tons and consisting of 19 miscellaneous items, including ice, beef, mutton, veal, fish, eggs, butter, cabbage, tomatoes, bananas, chicken, etc,, was received at 12.15 p. m. for immediate delivery. The order was telephoned to all sections and at 12.48 (33 minutes later) the entire order had been put up, invoices prepared, the goods loaded on a truck and forwarded to Cristobal for delivery aboard the supply boat.

This is an example of the service the Commissary Division is prepared to render all steamships at any time and while ordinarily more time in which to execute an order would be appreciated, such prompt service is available should the emergency arise.

Submarine Cable for Seattle—Alaska Service.

The United States cableship *Dellwood* transited the Canal on April 18, 1924, en route from London, England, to Seattle, Wash., laden with 3,500 tons of submarine cable, to be used between Seattle and Alaska.

She transited the Canal on her outward voyage on February 11, 1924.

Deck Hands for Transiting Ships.

Based on Article 7, and in accordance with the provisions of Article 12 of the Transit and Harbor Regulations of the Panama Canal, 1924, two deck hands will be placed aboard for each locomotive wire attached to the vessel during passage of the locks.

Small craft not using locomotives will have 4 deck hands placed aboard for handling lines.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 19, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
City of Birmingham	12	15.15	13	6.20	13	14.15	13	15.26	British	Norton, Lilly & Co.	391.0	54.2	27.10	New York	Sydney	General	8,994	6,706	5,017
Eurana [1]	13	1.15	13	6.20	13	15.00	13	15.53	American	International Mercantile Marine.	419.5	56.5	17.0	New York	San Francisco	Ballast		6,989	4,976
Sapelo [1]	12	10.35	13	6.52	13	15.12	13	16.13	American	U. S. Navy	477.0	60.0	21.8	Vicquez Sound	Balboa	Ballast			
Edward Luckenbach	13	7.45	13	8.35	13	16.03	13	17.00	American	Luckenbach Line	436.0	57.0	27.3	Boston	Seattle	General	6,100	8,543	6,427
Union City	13	9.20	13	9.45	13	17.42	13	19.00	British	St. Just Steamship Co.	399.2	54.0	27.0	New York	Wellington	General	4,840½	6,030	4,460
Lieut. David Putnam [2]			13		13	8.40			American	U. S. Army				Cristobal	Gatun	Towing barge			
Santa Clara	13	1.28	14	6.00	14	14.02	14	15.15	American	Pacific Mail Steamship Co.	401.6	53.0	26.4	Baltimore	San Francisco	General	6,555	6,760	4,450
Havre Maru	13	15.00	14	6.12	14	15.05	14	16.05	Japanese	Osaka Shosen Kaisha	407.0	50.0	24.3	New York	Shanghai	(4)	5,687	6,539	4,773
Ormidale [3]	13	15.50	14	7.18	14	15.50	14	16.48	American	C. D. Mallory & Co.	250.5	43.5	20.0	New Orleans	San Pedro	General	2,453	2,373	1,612
Ryufuku Maru	13	16.00	14	7.00	14	16.45	14	18.09	Japanese	Kokusai Kisen Kaisha	385.0	51.0	29.0	New York	Yokohama	(5)	7,013	5,919	4,400
Hugoton [1]	13	17.55	14	8.30	14	17.28	14	18.20	American	C. D. Mallory & Co.	434.8	56.2	22.0	New York	San Pedro	Ballast		7,429	5,175
John D. Archbold [1]	13	18.20	14	8.42	14	18.16	14	19.23	American	Standard Oil Co.	572.6	75.3	21.0	New York	San Pedro	Ballast		14,785	10,313
Cape Henlopen [1]	13	20.55	14	9.35	14	18.38	14	20.02	American	Cape Steamship Co.	453.0	56.2	21.0	New York	San Pedro	Ballast		7,425	5,202
Biyo Maru	14	4.05	14	9.50	14	19.08	15	7.44	Japanese	Toyo Kisen Kaisha	400.0	53.0	18.0	New York	Yokohama	General	2,697	6,196	4,640
Ansgir	14	8.12	14	11.00	14	19.42	14	20.04	German	Roland Line	393.0	54.0	23.0	Hamburg	Corral	General	5,160	6,542	4,532
Margaret Dollar	14	11.03	14	11.22	14	20.09	14	21.12	American	Dollar Line	429.0	55.2	23.0	New York	San Francisco	General	6,223	7,579	5,527
Nordlys	14	11.58	14	12.10	14	20.40	14	21.45	Danish	Wessel Duval & Co.	362.0	51.5	14.0	New Orleans	Iquique	Ballast		4,932	3,468
Venezuela	14	8.20	15	6.03	15	14.24	15	15.40	Italian	La Veloce Line	420.0	51.6	23.8	Genoa	Valparaiso	General	840	7,622	5,051
Huallaga	11	15.12	15	6.15	15	13.21	15	18.10	Peruvian	Peruvian Line	360.0	44.7	20.7	Cristobal	Guayaquil	General	466	4,514	2,386
Alden Anderson [1]	14	15.00	15	7.16	15	15.16	15	18.10	American	Associated Oil Co.	426.9	54.6	13.0	Fall River	San Francisco	Ballast		7,340	5,236
Pacific Shipper [3]	14	17.00	15	7.20	15	16.33	15	20.54	British	Furness, Withy & Co.	420.0	58.0	16.6	Manchester	Vancouver	General	1,174	7,892	5,858
Foldenfjord [1]	14	21.45	15	8.35	15	15.58	15	17.00	Norwegian	Anglo-Saxon Petroleum Co.	430.0	59.0	18.3	Thameshaven	San Pedro	Ballast		7,780	5,520
City of Para	12	15.30	15	9.50	15	17.49	15	18.58	Panaman	Pacific Mail Steamship Co.	345.0	38.6	15.0	Cristobal	Corinto	Ballast		3,739	2,459
Jamaica	10	18.10	15	9.45	15	17.53	15	18.58	British	Pacific Steam Navigation Co.	220.0	33.1	11.0	Cristobal	Buenaventura	General	413½	1,187	622
Samuel Q. Brown [1]	14	23.59	15	10.50	15	18.40	16	2.24	American	Tidewater Oil Co.	424.0	58.2	19.0	Fall River	San Pedro	Ballast		7,333	5,246
Betterton [1]	15	10.16	15	12.00	15	20.41	16	12.30	American	Walker & Daly (S. B.)	431.0	59.2	20.0	Providence	San Pedro	Ballast		7,822	5,180
Centaurus	15	11.15	15	13.07	15	21.41	16	7.30	American	Argonaut Steamship Line	410.0	54.0	24.6	Baltimore	Seattle	General	7,869	6,581	4,795
William Rockefeller [1]	15	16.42	16	6.10	16	14.04	16	15.10	American	Standard Oil Co.	554.9	75.3	21.0	New York	San Pedro	Ballast		14,785	10,313
City of Pittsburg	15	16.55	16	6.05	16	15.27	16	16.24	British	Ellerman Lines, Ltd.	465.7	58.6	25.5	New York	Brisbane	General	7,323	9,660	7,415
Dorothy Luckenbach	15	19.23	16	7.05	16	15.57	16	16.50	American	Luckenbach Line	448.9	60.2	26.10	New York	San Pedro	General	7,800	9,294	6,861

[1] Tanker. [2] Launch. [3] Motor ship. [4] Oil, machinery, and general. [5] Phosphate, cotton, oil, and machinery.

Queen Maud	15	19.30	16	7.30	16	16.43	16	19.10	British	The Queen Line, Ltd	400.2	52.3	22.0	Newcastle	New Calidonia	Coke	4,350	5,748	3,955
Imlay [1]	15	21.45	16	8.20	16	17.06	16	18.27	American	C. D. Mallory & Co	425.8	57.0	20.0	Boston	San Pedro	Ballast		7,217	4,959
W. F. Burdell [1]	16	4.55	16	9.35	16	17.30	16	18.27	American	Pure Oil Co	435.0	56.0	20.0	Philadelphia	San Pedro	Ballast		7,434	5,093
H. M. Flagler [1]	16	13.08	16	13.15	16	20.18	18	19.09	American	Standard Oil Co	461.6	60.0	22.0	Curacao	Los Angeles	Ballast		8,450	6,089
R. J. Hanna [1]	16	13.44	16	13.50	16	21.24	16	22.35	American	Standard Oil Co	435.0	53.2	18.0	New York	San Francisco	Ballast		7,639	5,206
Renown [6]			16	6.00	16				Panaman	Luis Estenoz	29.6			Colon	Panama	Ballast		5	3
Chester Sun [1]	16	17.55	17	6.15	17	13.08	17	16.00	American	Sun Oil Co	429.3	59.2	19.6	Chester	San Pedro	Ballast		7,684	5,249
Tacoma Maru	17	3.05	17	7.20	17	14.40	17	16.00	Japanese	Osaka Shosen Kaisha	410.0	51.0	22.6	Buenos Aires	Kobe	General	2,735	6,146	4,241
West Notus	17	8.25	17	8.40	17	16.16	17	21.14	American	Swayne & Hoyt (S. B.)	410.0	51.0	23.0	Buenos Aires	San Francisco	General	6,697	6,583	4,914
Tuxpanoil [1]	17	9.00	17	9.25	17	17.15	17	21.14	American	McAllister Brothers (S. B.)	431.0	59.2	20.0	Baltimore	San Pedro	Ballast		7,862	5,049
Corinto	11	23.20	17	9.30	17	18.12	17	22.00	American	Pacific Mail Steamship Co	261.1	40.8	16.8	Cristobal	San Francisco	General	1,425	2,352	1,549
Minnesotan	17	10.10	17	10.30	17	18.22	17	23.13	American	American-Hawaiian Line	407.0	53.7	24.0	Philadelphia	Seattle	General	5,823	7,150	4,913
Mystic	17	10.27	17	10.45	17	19.00	17	23.09	American	United American Line	400.7	54.2	22.6	New York	Los Angeles	General	5,709	6,623	4,625
Silverash	17	10.40	17	12.08	17	20.10	18	12.46	British	Kerr Line	405.0	52.6	23.0	New York	Shanghai	General	5,266	5,871	4,351
Arana	16	11.35	18	6.07	18	13.20	18	16.20	British	Pacific Steam Navigation Co	303.0	43.0	19.0	New York	Callao	Coal, general	2,584	2,851	1,697
City of Tokio	17	17.27	18	6.15	18	14.10	18	15.12	British	Hall Line, Ltd	442.6	58.6	25.0	New York	Los Angeles	General	7,780	9,085	6,933
Cubore [7]	17	17.30	18	7.10	18	14.58	18	15.56	American	Ore Steamship Co	450.6	57.2	19.0	Baltimore	Cruz Grande	Ballast		7,956	4,866
Sidney M. Hauptman	17	17.43	18	7.22	18	15.58	18	17.05	American	Munson, McCormack Co	417.0	52.0	21.8	New York	San Francisco	General	4,500	7,082	5,167
Port Nicholson	17	19.20	18	8.35	18	16.47	18	17.45	British	Commonwealth & Dom. Line	180.0	62.0	25.0	New York	Brisbane	General	2,683	10,821	8,048
Lena Luckenbach	18	6.10	18	8.42	18	17.50	18	18.44	American	Luckenbach Line	425.0	53.8	27.0	Galveston	San Pedro	General	8,210	7,217	5,295
Fulton [8]			18	8.40	18	18.15			American	U. S. Navy	216.0	35.0		Coco Solo	Balboa	Ballast			
Dellwood [9]	18	9.15	18	10.00	18	17.30	19	19.55	American	U. S. Army	320.0	46.0	21.6	London	Seattle	Cable	3,500	4,402	2,628
Orion [10]	18	5.55	18	11.20	18	19.35			American	U. S. Navy	521.0	65.0	30.0	Guantanamo	Balboa	Coal	10,361		
Steel Scientist	18	5.53	18	11.25	18	20.20	18	21.38	American	Isthmian Line	424.0	56.0	26.10	New York	Vancouver	Steel, general	8,278	7,611	5,454
Dixie Arrow [1]	19	6.25	19	6.35	19	13.36	19	14.47	American	Standard Transportation Co	468.3	62.7	20.0	New York	Los Angeles	Paint	29	9,744	7,140
Miskianza [1]	19	6.28	19	7.35	19	14.07	20	10.30	American	Walker & Daly (S. B.)	425.0	57.0	19.0	New York	San Pedro	Ballast		7,205	5,125
Chuky [1]	19	4.20	19	8.30	19	16.32	19	17.47	British	Chile Steamship Co	440.0	56.0	26.6	Tampico	Tocopilla	Crude oil	9,339	7,691	4,723
Salvador	11	18.53	19	10.18	19	17.20	19	20.18	British	Pacific Steam Navigation Co	215.0	35.4	14.0	Cristobal	Champerico	General	568	1,270	735
Tulsagas [1]	18	16.28	19	11.30	19	19.32			American	McAllister Brothers (S. B.)	431.0	59.2	19.0	New York	San Pedro	Ballast		7,817	5,049
Bogota	18	18.17	19	12.35	19	20.45	19	21.45	British	Pacific Steam Navigation Co	400.0	52.4	24.6	Hull	Valparaiso	General	5,974	5,733	4,015

[1] Tanker. [6] Launch. [7] Motor ship. [8] Subtender. [9] Transport. [10] Collier.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Santa Tecla	12	15.50	13	6.17	13	13.55	13	13.55	American	N. O. & S. A. S. S. Co	298.6	40.0	20.0	Antofagasta	New Orleans	Nitrate, sulphate	3,109	2,832	1,803
Ohio [12]	10	10.47	13	6.52	13	14.05	14	16.25	American	E. W. Scripps	160.5	26.0	10.11	San Diego	New York			530	240
J. L. Luckenbach	12	18.40	13	6.55	13	14.50	13	14.50	American	Luckenbach Line	448.9	50.2	32.0	Portland	Boston	General	8,800	9,294	6,861
Valparaiso [12]	12	16.25	13	7.33	13	15.40	14	18.50	Swedish	Johnson Line	367.0	51.3	28.6	San Francisco	Gothenberg	([14])	4,907	5,371	3,969
Loch Goil	12	21.00	13	8.03	13	17.20	13	23.43	British	Pacific Coast Line	485.6	62.3	28.9	Seattle	Antwerp	General	8,776	10,803	7,606
Francis E. Powell [1]	12	21.05	13	8.35	13	17.35	13	17.35	American	Atlantic Refining Co	431.0	59.2	27.3	San Pedro	Philadelphia	Gasoline	11,429	7,860	5,101
D. G. Schofield [1]	13	2.00	13	9.04	13	18.00	13	18.00	American	Standard Oil Co. of California	439.5	58.0	30.3	Los Angeles	New York	Crude oil	10,898	8,698	6,013
Norman Monarch	13	4.40	13	9.26	13	18.43	13	18.43	British	Wessel Duval & Co	400.6	52.2	24.11	Iquique	Cristobal [13]	Nitrate of soda	7,800	5,568	4,146
Norway Maru	12	22.00	13	12.22	13	20.20	13	20.20	Japanese	Kawasaka Kisen Kaisha	385.0	51.0	27.6	Caleta Colosa	Baltimore	Nitrate	8,500	6,254	4,705
Colombia	13	6.15	14	6.31	14	15.55	16	4.40	American	Pacific Mail Steamship Co	380.0	48.7	24.0	San Francisco	New York	General	4,132	6,113	4,281

[1] Tanker. [11] Yacht. [12] Motor ship. [13] For orders. [14] Grain, fruit, and coffee.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Benrinnes	13	18.35	14	7.08	14	16.30	14	17.50	British	Ben Line	405.0	51.5	22.6	Portland	Norfolk	Wheat	6,700	5,097	3,476
Santa Elisa	14	4.00	14	8.34	14	16.55	14	21.35	American	Grace Line, Inc	350.5	51.7	25.3	Talcahuano	New York	(17)	4,146	5,957	4,325
Chifuku Maru	14	5.25	14	9.08	14	17.43	14	17.43	Japanese	Kokusai Kisen Kabushiki	385.0	51.0	26.10	Portland	United King	White wheat	7,721	5,919	4,100
Byron D. Benson [1]	14	12.45	14	9.58	14	18 13	14	18.12	American	Tidewater Oil Co	465.4	60.2	26.6	San Pedro	New York	Crude oil	11,642	8,546	6,095
Nordfarer	14	11.40	14	12.43	14	20.10	14	21.05	Danish	P. Brown, Copenhagen	353.7	46.0	24.6	Caleta Colosa	Wilmington	Nitrate	5,850	4,289	3,092
Nile	14	12.15	14	13.00	14	21 45	15	1.20	British	Glen & Co	423.5	56.0	25.6	Tocopilla	Savannah	Nitrate of soda	8,950	6,319	4,552
Chilore	14	6.30	14	14.19	15	14.55	15	14.55	American	Oregon Steamship Corporation	549.6	72.2	34.0	Cruz Grande	Baltimore	Iron ore	20,000	11,538	9,348
Sciota [15]			14	12.54	14	20.00			American	U. S. Navy	155.0	30.0		Balboa	Cristobal				
Kinderdijk	14	22.30	15	8.38	15	16.55	15	20.00	Dutch	Holland-American Line	469.4	58.4	26.6	Vancouver	London	General	9,971	8,515	6,060
Texas	15	4.30	15	8.26	15	17.15	16	18.10	French	French Line	409.0	52.5	23.6	Portland	Havre	General	6,091	6,824	4,985
Orleans	15	7.20	15	8.57	15	17.39	15	17.45	American	Oriental Navigation Co	395.5	55.0	13.0	Honolulu	Hampton Rds.	Ballast		7,230	5,233
Oregma	15	10.15	15	11.49	15	18.33	16	15.08	British	Pacific Steam Navigation Co	511.6	62.2	26.2	Talcahuano	Liverpool	General	6,107	12,414	8,302
Virginian	15	12.00	15	12.50	15	20.07	15	21.07	American	American-Hawaiian Line	491.5	58.2	27.0	Seattle	Boston	General	7,000	10,491	7,546
Cerro Azul [1]	15	16.05	16	6.16	16	11.32	16	16.22	American	Pan.-Amer. Pet. & Transp. Co	480.5	66.0	27.6	San Pedro	New York	Crude oil	12,609	9,398	6,453
Clan MacWilliam	15	19.15	16	7.13	16	15 13	17	17.50	British	Clan Line, Ltd	423.3	55.9	25.0	Bunbury, W.A	Rotterdam	General	7,884	7,838	5,894
Kroonland	16	5.31	16	8.32	16	17.15	16	22.48	American	Panama-Pacific Line	560.0	60.2	26.0	San Francisco	New York	Fruit, general	4,810	13,514	11,751
G. Harrison Smith [1]	15	23.00	16	9.39	16	18.53	16	18.53	British	International Petroleum Co	550.0	72.3	31.6	Talara Peru	New York	Crude oil	18,000	15,476	9,127
Albert Jeffress	16	8.00	16	11.17	16	19.07	16	19.07	American	Garland Line	384.6	51.2	23.6	Aberdeen	New York	Lumber, shingles	5,700	6,347	4,456
Gen. G. W. Getty			16	7.23	16	10.03			American	U. S. Army	98.0	22.0		Balboa	Pedro Miguel				
Breckenridge [16]			16	7.10	16	9.00			American	U. S. Army				Balboa	Miraflores				
Santa Malta	17	4.15	17	7.50	17	15.12	17	15.12	American	Pacific Mail Steamship Co	401.5	53.7	28.4	San Francisco	Baltimore	General, lumber	6,600	6,766	4,809
Carolyn	17	8.45	17	14.45	17	23.32	19	19.55	American	Grace Line, Ltd	328.0	46.0	21.11	Caleta Bueno	New York	General	3,560	3,644	2,566
Sudawsonco	17	9.00	17	10.55	17	18.29	17	18.20	American	Transmarine Corporation	324.0	46.2	22.6	South Bend	New York	Lumber, general	4,000	3,894	2,612
Jurel [16]			17	14.34	17	17.35			American	A. H. Mohr	36.3	8.0		Balboa	Gatun Lake	Ballast			
Susherico	17	12.00	17	13.33	17	21.51	17	21.51	American	Transmarine Corporation	324.0	46.2	23.0	Seattle	New York	Lumber	3,854	3,984	2,612
Chattanooga City	17	19.36	18	6.27	18	15 20	18	15.20	American	Isthmian Steamship Line	424.2	56.2	23.6	Seattle	Boston	(18)	6,462	7,611	5,450
A. C. Bedford [1]	18	7.00	18	7.58	18	16.40	18	16.40	American	Standard Oil Company of N. J	500.0	68.0	30.0	San Pedro	New York	Crude oil	15,000	10,896	7,688
Pacific	18	10.30	18	12.46	18	20.53	18	21.40	American	Argonaut Steamship Line	499.0	56.0	26.0	Everett	Baltimore	Lumber	7,500	6,479	4,709
Cathwood [1]	18	8.40	18	12.49	18	21.50	18	21.55	American	Union Oil Co. of California	435.0	56.0	28.6	Los Angeles	New York	Crude oil	11,000	7,482	5,143
Mantaro	18	2.20	18	13.34	18	23.30	20	8.15	Peruvian	Peruvian Line	367.3	46.0	16.9	Callao	Covenas	General	1,232	4,838	2,959
Lake Gunai	18	22.30	19	7.22	19	14.40	19	14 40	American	Steele Steamship Co	253.4	43.8	21.6	Seattle	New Orleans	General	2,503	2,915	2,005
Teifuku Maru	19	6.30	19	8.43	19	16.55	19	16.55	Japanese	Kokusai Kisen Kabushiki	385.0	51.0	27.6	Portland	United King	Wheat	7,656	5,933	4,595
Cadillac [1]	19	10.25	19	11.08	19	18.59	20	0.28	British	Anglo-American Oil Co	529.2	65.3	30.0	San Pedro	Hull	Gasoline	13,847	12,091	8,737
Eastwind	19	0.40	19	12 19	19	20.20	19	20 20	American	U. S. & Australia Line	384 3	51.2	16.6	Adelaide	New York	General, wool	1,019	5,966	4,442

[1] Tanker. [15] Tug. [16] Launch. [17] Nitrates, copper, and general. [18] Lumber, canned goods, and general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 528, column 2.)

Notice to Mariners.—Aid to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., April 17, 1924.

The following message was received by the Hydrographic Office, through the Commandant's office, Fifteenth Naval District, this morning:

"U. S. S. *Denver* has established a red beacon on the rocky shoal extending immediately to the westward of the town of Amapala, Honduras, and a gasoline drum painted red on the pinnacle rock, 350 feet to the westward of knob of Caracolita Islet, in the approaches to Amapala harbor."

M. L. WALKER,
Acting Governor.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended April 21:

Steamships *Cristobal*, install two ammonia condensers in refrigerator engine room; repair leaks in brine and steam piping in refrigerating engine room; shellac new refrigerating room with two coats; relocate sounding pipe to deep tank, port side; burn out two manholes and install cover plates in after engine room; calk deck in chart room and continue calking boat deck; renew cement deck in butcher's shop; manufacture brass and iron castings as directed and repair plumbing, etc.; *Salvador*, install new boiler injector and one new glass in saloon port; remetal one pair of crosshead brasses; repair main feed pump plunger, iron exhaust pipes from forward winch to windlass, scales, and cooking utensils; renew fire bricks in galley stove and fairlead for sounding machine; manufacture one new hatch tarpaulin, etc.; tug *Tavernilla*, install new steam chest on towing machine and one new side bitt; repair filter boxes as directed; steamship *City of Para*, burn hole under jacking engine foundation to reach holding down bolts; drill holes in H. P. follower head bolts and manufacture copper washers for each bolt; repair copper steam line for anchor windlass and stripper bar on anchor engine wild cat, etc.; *Ulysses*, bore H. P. cylinder and counterbore to suit new rings and install new bull ring with two snap rings; true up grooves in two H. P. packing boxes, also true up crosshead pins and bore brasses to suit; rebabbit guide slipper; take shoulder off H. P. port piston rod and manufacture one set of metallic packing; clean boilers; renew ends on 8 burner tubes; repair hand fire pump and No. 4 lifeboat, etc.; U. S. submarine *O–4*, dock, clean and paint bottom; install new cast steel housing for main engine; regrind sea valves and renew zincs as necessary; test and repair all fuel, trim and ballast tanks; remove and replace soft patches in after battery compartment; make minor structural repairs to hull and outside steering and diving gear; calibrate air, hydrostatic and fuel gauges; remove and repair float gauges on auxiliary and regulator tanks; swing starboard crankshaft in lathe, check up alignment of shaft, crank pin and journals; swing starboard camshaft in lathe, check up alignment of shaft and cams and press on new cams; line up main shafting; regrind muffler valves; check propeller pitch and make minor repairs to propellers, stern tubes, and outboard bearings, etc.; barge *Darien*, manufacture cover for strainer in pump room, new link for fire pump, two sheaves for towing chock and one brass stencil; repair hand pump, deck steam line, traveller track on mizzen mast, and wheelhouse clock, etc.;

Minor repairs—Steamships *Lautaro*, *Lagarto*, *Bennekom*, *Huallaga*, *Jamaica*, *Corinto*, launch *Coco Solo*, and U. S. submarine *O–4*, steamships *Arana*, *Carolyn*, *Tulsagas* and yacht *San Blas*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending April 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Colombia	Pacific Mail Steamship Co	April 13	April 14	64	
Maj. Albert G. Force [1]	Pinel Bros	April 16	April 19		261
Arana	Pacific Steam Navigation Co	April 18	April 18		2
Salvador	Pacific Steam Navigation Co	April 19	April 19		19

[1] And barge.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending April 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Nubian	Leyland Line	.....	April 6	.....	305
Oklahoma	French Line	.....	April 6	.....	219
Sonora	French Line	April 6	April 6	12	49
Evelyn	Grace Line	April 6	April 7	696	164
Parismina	United Fruit Co	April 6	April 6	69	228
Calamares	United Fruit Co	April 6	April 6	27	403
Newport	Pacific Mail Steamship Line	.....	April 7	.....	872
Sesostris	Kosmos Line	April 7	April 8	18	(2)
Atenas	United Fruit Co	April 8	April 10	1,053	349
Pastores	United Fruit Co	April 8	April 9	474	272
Panama	Panama Railroad Steamship Line	.....	April 9	.....	1,677
Sixaola	United Fruit Co	April 9	April 10	175	420
Parismina	United Fruit Co	April 9	April 9	6	11
La Playa	United Fruit Co	April 9	April 10	15	66
Orita	Pacific Steam Navigation Co	April 10	April 11	122	18
Lautaro	Pacific Steam Navigation Co	April 10	April 11	5	256
Jamaica	Pacific Steam Navigation Co	April 10	.....	580	.....
Lagarto	Pacific Steam Navigation Co	April 10	April 12	(3)	188
Puerto Rico	French Line	April 10	April 11	183	450
Mineola	New Orleans & S. America Line	April 10	April 10	182	7
Metapan	United Fruit Co	April 10	April 10	(1)	68
Corinto	Pacific Mail Steamship Co	April 11	.....	1,787	.....
Huallago	Peruvian Line	April 11	.....	1,108	.....
Bennekom	Royal Netherlands W. I. Mail Co	April 11	April 11	200	14
Ebro	Pacific Steam Navigation Co	April 11	April 11	6	273
Salvador	Pacific Steam Navigation Co	April 11	.....	971	.....
City of Para	Pacific Mail Steamship Co	April 12	.....	1,557	.....
Heredia	United Fruit Co	April 13	April 13	580	116
Pastores	United Fruit Co	April 13	April 13	8	337
Cristobal	Panama Railroad Steamship Line	April 13	.....	3,025	.....
Lochgoil	Pacific Steam Navigation Co	April 13	April 13	(1)	244
Valparaiso	Johnson Line	April 13	April 14	(1)	436
Santa Clara	Pacific Mail Steamship Co	April 13	April 14	384	343
Santa Elisa	Grace Line	April 14	April 14	(1)	185
Venezuela	Italian Line	April 14	April 15	160	(2)
Jamaica	Pacific Steam Navigation Co	.....	April 15	.....	423
Huallago	Peruvian Line	.....	April 15	.....	412
Colombia	Pacific Mail Steamship Co	April 14	April 16	1,902	363
Oreoma	Pacific Steam Navigation Co	April 15	April 16	(1)	60
Ulua	United Fruit Co	April 15	April 16	138	247
Stuyvesant	Royal Netherlands W. I. Mail	April 15	April 16	232	(5)
Texas	French Line	April 15	April 16	(1)	304
Heredia	United Fruit Co	April 16	April 16	(4)	4
Turrialba	United Fruit Co	April 16	April 16	526	(2)
Carrillo	United Fruit Co	April 16	April 17	183	554
Arana	Pacific Steam Navigation Co	April 16	April 17	116	239
Corinto	Pacific Mail Steamship Co	.....	April 17	.....	1,390
Carolyn	Grace Line	April 18	April 19	(1)	63
Mantaro	Peruvian Line	April 18	.....	1,232	.....
Bogota	Pacific Steam Navigation C	April 18	April 19	6	67
Bayano	Elders & Fyffes, Ltd	April 19	April 19	8	(6)
Stuyvesant	Royal Netherlands W. I. Mail	April 19	April 19	8	704
Ashbee	Grace Line	April 19	.....	180	.....
Salvador	Pacific Steam Navigation Co	.....	April 19	.....	569

[1] No cargo discharged. [2] No cargo laded. [3] 6 packages. [4] 250 pounds. [5] 120 pounds. [6] 9 packages.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Postal and Cable Addresses of The Panama Canal.

The postal address is "The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Mail for ships passing through the Canal or touching at either of the terminal stations should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective April 16, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	21
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.61
Oil, engine, gas, extra heavy, in cases	Gal.	.66
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.175

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port au Prince	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince	Arrive New York.
Cristobal [1]	April 5	April 10	April 13	April 20	April 23	April 28.
General W. C. Gorgas	April 15	April 21	April 24	April 29	May 2	May 7.
Panama	April 25	April 30	May 3	May 9	May 12	May 17.
Cristobal [1]	May 5	May 10	May 13	May 19	May 22	May 27.
General W. C. Gorgas	May 15	May 21	May 24	May 29	June 1	June 6.
Panama	May 24	May 29	June 1	June 9	June 12	June 17.
Cristobal [1]	June 5	June 10	June 13	June 19	June 22	June 27.
General W. C. Gorgas	June 14	June 20	June 23	June 29	July 2	July 7.
Panama	June 25	June 30	July 3	July 9	July 12	July 17.
Cristobal [1]	July 5	July 10	July 13	July 20	July 23	July 28.
General W. C. Gorgas	July 15	July 21	July 24	July 29	August 1	August 6.
Panama	July 25	July 30	August 2	August 8	August 11	August 16.

Effective May 5 steamers sail daylight saving time.
Steamers sail at 3 p. m. from Pier 67, North River, foot of West 27th Street, New York.
[1] Sails 3 p. m. from Pier 65, North River, foot of West 25th Street.

WEST COAST SERVICE.

In addition, a regular freight service is maintained, without calls en route, direct to Cristobal, Buenaventura, and Ecuadorian ports. Particulars upon application.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 7 years of operation.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual carning capacity $1.20
2. Vessels in ballast, without passengersor cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity.. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, South American Steamship Campany (Chilean Line). The Pacific Mail charges $6 for the trip, the others $10. The several services together afford about 5 transits of the Canal each way every week.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 524.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
April 13	Heredia	United Fruit Co.	New Orleans via Habana.
April 13	Pastores	United Fruit Co.	Port Limon.
April 13	Cristobal	Panama Railroad Steamship Line.	New York via Haiti.
April 15	Stuyvesant	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.
April 15	Ulua	United Fruit Co.	New York via Habana.
April 16	Heredia	United Fruit Co.	Bocas del Toro.
April 16	Turrialba	United Fruit Co.	New Orleans via Habana.
April 16	Carrillo	United Fruit Co.	New York via Kingston.
April 19	Bayano	United Fruit Co.	Port Limon.
April 19	Stuyvesant	Royal Netherlands W. I. Mail Co.	Port Limon.
April 16	Panama [19]	Max Freundelich	Colon.
April 19	Ulysses [20]	Panama Railroad Steamship Line.	Norfolk.

*DEPARTURES.

Date.	Vessel.	Line.	For—
April 13	Heredia	United Fruit Co.	Bocas del Toro.
April 13	Pastores	United Fruit Co.	New York via Habana.
April 15	Bacchus	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.
April 16	Heredia	United Fruit Co.	New Orleans via Habana.
April 16	Turrialba	United Fruit Co.	New Orleans via wayports
April 16	Ulua	United Fruit Co.	Port Limon.
April 16	Stuyvesant	Royal Netherlands W. I. Mail Co.	Port Limon.
April 17	Carrillo	United Fruit Co.	Colombian ports.
April 19	Bayano	Elders & Fyffes, Ltd.	Bristol via Kingston.
April 16	Panama [19]	Max Freundelich	Colon.
April 19	Stuyvesant	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.

[19] Schooner. [20] And barge Darien.

PORT OF BALBOA.

April 16	Maj. Albert G. Force	Pinel Brothers	Panama.	April 19	Maj. Albert G. Force	Pinel Brothers	Panama.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., April 30, 1924. No. 38.

Two P. S. N. Steamers to be Converted to Oil Burners.

The Pacific Steam Navigation Co. announces that two of its coal-burning passenger steamers using the Panama Canal, the *Ebro* and the *Oropesa*, are shortly to be converted into oil burners. The *Ebro* is on the run between New York and Valparaiso, and will be refitted at the former port. The *Oropesa* is in service from Europe, through the Straits of Magellan to Valparaiso, and home via Panama, and conversion will be carried out in the United Kingdom. To provide for these changes, the sailing of the *Oropesa* from Liverpool, scheduled for July 10, and the sailing of the *Ebro* from New York, scheduled for June 15, have been cancelled. This annuls the sailing of the *Oropesa* from *Cristobal* for Europe on September 5, and the sailing of the *Ebro* from Cristobal, southbound, on June 26, and northbound, on July 28.

The number of oil-burning vessels using the Panama Canal is constantly increasing. Of the steamers in transit during the month of March, 282 burned oil, 117 burned coal, and 3 were fitted to burn either fuel. In addition there were 22 motorships and 5 motor schooners using oil in internal combustion engines.

Shipments of Automobiles Through the Panama Canal.

On April 13, 1924, the British steamship *City of Birmingham* passed through the Canal en route from New York to Australian and New Zealand ports. A large item in her cargo was 3,000 measured tons of automobiles from New York to Australian and New Zealand ports. This is from three to five hundred machines.

During the calendar year 1923, 77,631 tons of automobiles were shipped through the Canal from Atlantic to Pacific; of these, 58,204 tons originated on the east coast of the United States, 17,386 on the east coast of Canada, and 2,041 tons at various other points.

Of the 77,361 tons of automobiles westbound through the Canal in 1923, 65,215 tons were destined to Australasian ports. A large estimate for each machine is 10 measured tons, 400 cubic feet, which gives over 6,500 machines to Australasia during the year 1923.

During the first 3 months of the current calendar year, 28,017 tons of automobiles have been shipped through the Canal, westbound, 20,912 tons of which were destined to Australasian ports.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending April 26, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Atrato	Colombian Maritime	April 21	April 21	16	.....
Buenos Aires	Compania Transatlantica	April 27	April 27	160	.....
Ecuador	Pacific Mail Steamship Co.	April 21	April 21	94	.....
Iowan	Pacific Mail Steamship Co.	April 22	.....	.....	1
Ling Nam	Chingwha Navigation Co.	April 25	April 26	133	.....

CANAL WORK IN MARCH.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of March, 1924:

BALBOA HEIGHTS, C. Z., April 16, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of March, 1924:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 429, averaging 13.84 per day. In addition to commercial vessels, there were 13 transits of small launches, on which tolls were paid but which are not taken up in the commercial traffic, and 27 transits of Government vessels from which no tolls were collected, making the total transits of all kinds, 469. The daily average of transits of all kinds was 15.13.

Tolls for the month were $1,997,125.08 on the 429 commercial transits, and $34.95 on the 13 launches, making the total tolls collection for the month, $1,997,160.03. The average daily tolls collection on all traffic was $64,424.52.

The total number of craft of all kinds transiting the Canal during the month of March, 1924, as compared with the same month in 1923 and 1922, is shown in the following tabulation:

	March, 1924.	March, 1923.	March, 1922.
Commercial vessels	429	409	234
Noncommercial vessels, Army and Navy	27	106	15
Launches, under 20 tons measurement	13	6	4
Total vessels transiting Canal	469	521	253

It will be noted that the total transits in March, 1923, due to naval movements, exceeded the total for March of this year. This is the first month since April, 1922, in which the total transits were not in excess of those in the corresponding month of the preceding year.

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	13	17	30
Pedro Miguel	21	19	40
Miraflores	21	19	40
Totals	55	55	110

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of commercial vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by commercial vessels transiting the Canal each month, from the beginning of the fiscal year, 1924, to the end of March, 1924, as compared with the same months in the previous year:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922–3	1923–4	1922–3.	1923–4.	1922–3.	1923–4.	1922–3.	1923–4.
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August	257	454	1,081,133	2,232,590	1,165,959	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,419	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
December	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January	352	476	1,610,692	2,400,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
February	326	418	1,529,547	2,108,879	1,563,278	2,243,616	1,423,954.21	1,964,155.59
March	409	429	1,988,192	2,136,079	1,940,928	2,272,472	1,827,718.44	1,997,125.08
Totals	2,727	4,033	12,433,780	20,081,998	13,019,201	20,459,153	11,759,001.58	18,638,602.39

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 9 months of the current fiscal year, as compared with the preceding fiscal year, has been 47.9 per cent in number of vessels, 61.51 in Panama Canal net tonnage, 57.14 in tons of cargo carried, and 58.5 per cent in tolls.

It will be noted from the preceding table that the three months since the peak month of December, 1923, show slight declines, but, unless the decline becomes more marked, the close of the fiscal year, 1924, should show a monthly average of $2,000,000 in tolls collections, and well over 5,000 commercial transits for the year.

Following is a summary of the commercial traffic in March, 1924, as compared with the corresponding months in 1923 and 1922, and with the average per month for the calendar year, 1923:

	March, 1924.	March, 1923.	March, 1922.	Average per month for calendar year 1923.
Number of vessels	429	409	234	420
United States net tonnage	1,712,044	1,608,358	786,759	1,665,195
Panama Canal net tonnage	2,136,079	1,988,192	975,811	2,061,453
Registered gross tonnage	2,727,211	2,532,157	1,226,971	2,638,175
Registered net tonnage	1,704,095	1,602,219	776,034	1,660,964
Tolls	$1,997,125.08	$1,827,718.44	$956,726.76	$1,913,903.18
Tons of cargo carried	2,272,472	1,940,928	960,089	2,096,712

The average daily number of transits, tolls, and cargo, are shown in the following statement in comparative form:

	Average per day.			Average per day of calendar year 1923.
	March, 1924.	March, 1923.	March, 1922.	
Number of transits	13.84	13.2	7.5	13.8
Panama Canal net tonnage	68,906	64,135	31,478	67,774
Tolls	$64,423.39	$58,958.66	$30,862.15	$62,922.84
Tons of cargo carried	73,306	62,611	30,971	68,933

From the foregoing it will be seen that the average daily traffic in March, 1924, shows the following increases: Number of commercial transits, 4.8 per cent; Panama Canal net tonnage, 7.4 per cent; tolls, 9.3 per cent; and tons of cargo carried, 17 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during month of March, 1924, as compared with March, 1923, and March, 1922, are shown in the following tabulation:

	Average per vessel.		
	March, 1924.	March, 1923.	March, 1922.
United States equivalent net tonnage	3,991	3,932	3,362
Panama Canal net tonnage	4,979	4,861	4,170
Registered gross tonnage	6,217	6,191	5,243
Registered net tonnage	3,972	3,917	3,316
Tolls	$4,655.30	$4,468.75	$4,088.57
Cargo (including vessels in ballast)	5,297	4,745	4,103
Cargo (laden vessels only)	6,568	6,342	4,424

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement, giving a summary of the intercoastal traffic through the Canal, for the month of March for the past 4 years, indicates the great increase of traffic over this route:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
March, 1921	16	71,770	55,111	11	61,804	52,289	27	133,574	107,400
March, 1922	34	162,572	141,648	25	128,988	123,657	59	291,560	265,305
March, 1923	85	479,786	237,564	71	397,033	658,267	156	876,819	895,831
March, 1924	89	484,288	242,341	94	525,486	873,372	183	1,009,774	1,115,713

UNITED STATES SHIPPING BOARD VESSELS.

Twenty-two vessels of the United States Shipping Board transited the Canal during the month of March, 1924; of these, 15 were employed in the United States intercoastal trade. Of the 22 vessels, 11 were tankships, and 11 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels through the Canal during the month of March for the past 3 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Total.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
March, 1922...	16	84,766	90,633	9	51,848	37,310	25	136,614	127,943
March, 1923...	13	66,314	40,177	11	57,632	78,243	24	123,946	118,420
March, 1924...	11	55,197	33,929	11	55,382	88,301	22	110,579	122,230

ORIGIN AND DESTINATION OF TONNAGE.

The origin and destination of all tonnage passing through the Canal during the month of March, 1924, by principal geographical areas, as compared with March, 1923, and March, 1922, are shown in the following tabulation. The figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	March, 1924.	March, 1923.	March, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	765,115	816,484	382,213
Europe (including British Isles)	230,623	239,194	144,630
East coast of Mexico and Central America	20,075	13,688	17,223
Cristobal, C. Z.	9,157	21,411	21,389
East coast of South America	9,465	40,980	622
Miscellaneous	21,237	9,525	19,964
Totals	1,055,672	1,141,282	586,041
Destination, Pacific-bound tonnage.			
West coast of United States	595,456	596,845	195,833
West coast of South America	219,202	233,257	105,532
Australasia	84,623	120,615	83,107
Far East	99,459	118,258	149,697
Canada, west coast	40,067	55,391	33,690
West coast of Mexico and Central America	16,865	16,916	18,182
Totals	1,055,672	1,141,282	586,041
Origin, Atlantic-bound tonnage.			
West coast of United States	649,342	462,977	175,669
West coast of South America	212,701	243,903	104,847
Australasia	64,694	46,910	48,575
Far East	25,848	15,535	15,008
Canada, west coast	120,369	70,454	36,684
West coast of Mexico and Central America	7,427	7,131	8,987
Miscellaneous	26	.....	.....
Totals	1,080,407	846,910	389,770
Destination, Atlantic-bound tonnage.			
East coast of United States	697,516	554,233	193,267
Europe (including British Isles)	283,623	228,074	134,687
East coast of Mexico	50,806	19,243	34,969
Cristobal, C. Z.	17,469	28,267	18,724
East coast of South America	4,910	8,495	1,244
Miscellaneous	16,083	8,598	6,879
Totals	1,080,407	846,910	389,770

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of March, 1924, was $1,997,125.08 on commercial vessels. Had the net tonnage as determined by The Panama Canal rules of measurement been used exclusively, this revenue would have been $2,360,096.20, a difference of $362,971.12. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$41,434.85	$40,953.95	$82,388.80
Chilean	1,256.00	1,598.30	2,854.30
Danish	1,695.70	1,126.85	2,822.65
Danzig	.....	4,280.85	4,280.85
Dutch	4,381.45	7,132.10	11,513.55
French	1,418.00	1,072.75	2,490.75
German	9,010.85	8,808.90	17,819.75
Italian	.....	1,147.55	1,147.55
Japanese	5,395.45	4,343.25	9,738.70
Jugo-Slavic	1,416.90	.....	1,416.90
Norwegian	1,339.15	6,977.30	8,316.45
Panaman	247.05	246.27	493.32
Peruvian	3,306.80	4,965.50	8,272.30
Spanish	841.55	2,897.80	3,739.35
Swedish	1,856.25	2,630.90	4,487.15
United States	66,857.90	134,330.95	201,188.85
Totals	140,457.90	232,513.22	362,971.12

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$47,940.73	$113,924.85	$161,865.58
United States foreign trade	17,741.17	19,631.40	37,372.57
United States to Canal Zone trade	1,176.00	774.70	1,950.70
Totals	66,857.90	134,330.95	201,188.85

Of the additional $362,971.12 that would have been assessed by using exclusively The Panama Canal rules of measurement, $16,299.60 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurements, of vessels transiting the Canal in March, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, March, 1924.
British	.95	1.34	1.20
Chilean	.55	1.24	.97
Danish	.53	1.59	.96
Danzig	.....	1.70	1.70
Dutch	.83	1.24	1.03
French	.79	1.40	1.17
German	.82	1.44	1.13
Italian	.....	.87	.87
Japanese	1.02	1.37	1.20
Jugo-Slavic	1.53	.....	1.53
Norwegian	1.64	1.72	1.71
Panaman	.32	1.07	.70
Peruvian	.20	.43	.35
Spanish	.06	.64	.46
Swedish	1.57	1.28	1.37
United States	1.20	1.66	1.52
Average ratio, March, 1924	1.06	1.54	1.37
Average ratio, March, 1923	1.06	1.52	1.24
Average ratio, March, 1922	1.05	1.11	1.07

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes, is shown in the following tabluation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.50	1.66	1.10
United States and South America	.28	1.74	1.02
United States and Europe	.31	1.66	.98
United States and Far East	1.15	1.26	1.17
Europe and South America	.72	1.17	.93
Europe and Canada	.36	1.61	1.31
Cristobal and South America	.82	.47	.48
United States and Australasia	1.07	.36	.84
United States and Canada	.59	1.58	1.29

COMMODITY STATISTICS.

Cargo passing through the Canal during the month of March, 1924, totaled 2,272,472 long tons. This is 222,162 long tons less than the cargo for December, 1923, the peak month; and 154,860 tons less than in January, 1924. The daily average was less than for February, 1924.

As compared with March, 1923, there was an increase of 331,544 long tons. Approximately 17 per cent more cargo was carried through the Canal in March, 1924, than in the corresponding month of the previous year. The Atlantic-to-Pacific cargo shows a decrease of 54,940 tons, and the Pacific-to-Atlantic an increase of 386,484 tons, as compared with the same month in 1923.

From the Atlantic to the Pacific, the principal items in order were various manufactured goods, mineral oils, coal and coke, various metals, cement, and automobiles and accessories.

From the Pacific to the Atlantic, the principal items in order were mineral oils, wheat, lumber, nitrates, various ores, and canned goods. The great increase of grain, principally wheat, passing over this route may be noted from the table which follows. The amount of wheat through the Canal eastbound in March, 1924, is nearly 8 times that in March, 1922, and nearly 5 times that in March, 1923. Lumber also shows a considerable increase, being over twice as great as in March, 1923.

The following commodity statistics were compiled from cargo declarations submitted by masters of vessels at the time of transit, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	March, 1924.	March, 1923.	March, 1922.
Atlantic to Pacific.			
Agricultural implements	2,608	2,581	407
Ammonia	2,283	13,397	1,817
Automobiles and accessories	11,547	9,135	1,489
Canned goods	2,043	1,866	1,228
Cement	16,970	9,936	4,364
Chemical	1,713	856	2,196
Coal and coke	44,041	15,381	50,487
Coffee	170	4,958	377
Cotton	11,625	19,088	7,507
Explosives	6	2,780	2,068
Glassware	2,081	3,968	3,334
Manufactured goods:			
Iron and steel	103,150	118,339	130,906
Machinery	5,518	14,182	8,792
Railroad material	10,082	15,541	10,746
Textiles and other	13,278	27,433	5,864
Metals, various	27,945	28,627	27,665
Mineral oils	80,754	78,800	77,560
Ores, various	253	401	5,582
Phosphates	2,701	6,865	155
Paper	5,078	10,390	2,543
Rosin	3,796	3,779	478
Salt	748	3,674	1,414
Slag	1,000	4,395	.....
Sugar	5,380	3,400	41,012
Sulphur	9,470	9,450	2,000
Tobacco	5,244	3,287	4,683
Other and general	250,064	261,529	187,278
Totals, Atlantic to Pacific	623,548	678,488	581,952
Pacific to Atlantic.			
Barley	18,807	25,276	7,362
Beans	7,621	7,202	7,616
Borax	3,390	4,491	3,101

Commodity.	March, 1924.	March, 1923.	March, 1922.
Pacific to Atlantic—Continued.			
Canned goods	34,034	30,753	35,911
Coffee	21,070	15,584	16,210
Cold storage	12,194	16,805	19,926
Copra	6,586	45	5,936
Cotton	3,006	3,756	4,837
Flour	2,254	7,429	3,147
Fruit, fresh and dried	15,864	9,728	7,235
Hemp	1,561	3,605	1,060
Lumber	163,950	132,014	74,432
Metals, various	30,311	24,360	18,222
Nitrates	115,194	222,086	22,231
Mineral oils	790,067	540,849	30,379
Ores, various	89,755	65,081	4,192
Skins and hides	5,793	4,270	2,488
Sugar	23,636	17,587	6,386
Wheat	173,496	39,280	23,212
Wool	18,153	13,808	20,581
Other and general	112,182	78,431	63,673
Totals, Pacific to Atlantic	1,648,924	1,262,440	378,137

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of March, 1924, was published in THE PANAMA CANAL RECORD for April 9, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of March, 1924, as compared with the same month in the years 1923 and 1922:

Route.	Atlantic to Pacific. Number of vessels.			Pacific to Atlantic. Number of vessels.		
	March, 1924.	March, 1923.	March, 1922.	March, 1924.	March, 1923.	March, 1922.
United States intercoastal	92	85	34	94	71	25
United States and South America	25	32	14	25	23	11
Europe and South America	21	16	9	19	25	11
United States and Far East	17	22	26	3	3	3
Europe and United States	13	14	6	13	8	7
Europe and Canada	6	7	3	21	8	3
Europe and Australasia	4	8	9	6	4	8
United States and Australasia	10	9	5	5	3	.....
Mexico and South America	2	1	2	1	2	4
Cristobal and South America	2	8	7	6	9	8
United States and Canada	2	3	2	5	5	4
Miscellaneous	18	28	21	19	15	12
Totals	212	233	138	217	176	96
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	507,331	479,786	162,572	525,486	397,033	128,988
United States and South America	107,354	134,311	43,265	112,085	100,227	28,413
Europe and South America	96,786	71,749	39,648	88,430	113,683	41,307
United States and Far East	90,475	113,969	128,520	14,945	15,535	15,008
Europe and United States	66,251	69,041	26,581	60,164	37,441	33,071
Europe and Canada	32,247	36,161	18,032	100,914	43,181	15,826
Europe and Australasia	27,359	56,566	54,848	40,998	31,005	44,483
United States and Australasia	49,077	52,498	28,259	23,696	11,551	.....
Mexico and South America	9,554	4,723	10,076	4,831	9,608	19,788
Cristobal and South America	144	14,754	12,543	9,081	16,141	12,552
United States and Canada	12,958	14,743	7,660	31,394	27,273	20,858
Miscellaneous	56,136	92,981	54,037	68,283	44,232	29,476
Totals	1,055,672	1,141,282	586,041	1,080,407	846,910	389,770
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	242,341	237,561	141,648	873,372	658,267	123,657
United States and South America	29,543	27,353	25,879	195,543	169,850	29,098
Europe and South America	69,863	44,860	17,545	103,373	189,635	45,998
United States and Far East	104,369	145,230	192,249	18,781	21,500	18,913
Europe and United States	24,695	29,228	22,735	99,638	52,669	54,268
Europe and Canada	11,749	23,168	21,962	162,509	64,088	24,556
Europe and Australasia	22,268	46,384	35,505	32,846	24,641	45,210
United States and Australasia	52,305	51,884	29,780	8,558	5,446	.....
Mexico and South America	19,319	9,500	19,100	.....	.....	.....
Cristobal and South America	118	4,659	3,441	4,272	6,532	3,813
United States and Canada	7,666	17,295	12,200	49,726	35,623	21,982
Miscellaneous	39,312	41,363	59,908	100,396	43,189	10,642
Totals	623,548	678,488	581,952	1,648,924	1,262,440	378,137

LATIN-AMERICAN TRAFFIC.

As compared with March, 1923, this traffic shows the following differences: Number of vessels, 17 less; Panama Canal net tonnage, 59,024 tons less; tolls collected, $8,939.55 less; cargo carried 24,755 tons more.

The principal commodities from Latin-American points were nitrates, various ores, coffee, copper, and sugar, in the order named. To Latin-American points, the principal commodities were coal and coke, mineral oils, various manufactured goods, and cement, in the order named.

Nitrate shipments from South America totaled 115,194 tons during the month, as compared with 190,582 tons in February, 1924, and 272,998 tons in January, 1924.

In the following tabulations are shown the tonnage, tolls, and cargo of all vessels routed to or from Latin-America, segregated by nationality and direction, together with the totals in each direction as compared with the month of March, 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	25	82,130	99,128	135,282	82,277	$91,181.24	58,463
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	2,572
Danish	3	6,286	7,631	9,788	6,020	7,857.50	4,036
Dutch	3	11,211	13,675	17,810	11,190	14,013.75	14,014
French	1	3,566	4,081	5,681	3,600	4,457.50	2,604
German	6	17,937	23,867	29,246	18,053	22,421.25	18,916
Japanese	1	3,590	4,101	5,770	3,547	4,487.50	3,231
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,100
Norwegian	3	9,232	11,982	14,784	9,261	9,464.91	5,200
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	810
Peruvian	2	2,504	5,364	7,922	3,941	3,130.00	1,081
Spanish	1	3,017	3,844	5,205	3,226	3,771.25	226
United States	17	61,414	72,080	102,937	61,379	58,891.96	25,914
Totals, March, 1924	65	209,256	256,904	349,428	211,338	230,138.11	143,161
Totals, March, 1923	77	225,871	281,388	369,230	227,293	241,154.34	111,268
Totals, March, 1922	50	120,157	152,485	195,943	120,607	144,979.14	121,290
Pacific to Atlantic.							
British	25	96,387	110,903	150,836	96,081	116,854.88	159,667
Chilean	2	5,714	7,268	10,870	6,139	7,142.50	9,036
Dutch	4	10,636	16,257	17,214	10,610	13,295.00	18,300
French	2	7,883	8,376	10,707	6,673	9,576.00	12,203
German	5	15,888	21,797	26,062	16,020	19,860.00	29,448
Italian	2	4,713	5,864	7,526	4,311	5,889.25	1,301
Japanese	2	8,617	9,046	11,704	8,481	10,592.20	16,376
Norwegian	5	13,240	17,183	19,947	12,307	16,465.30	31,834
Panaman	2	2,189	2,485	3,437	2,189	2,723.25	2,619
Peruvian	3	4,010	8,315	12,666	6,614	5,012.50	3,549
Spanish	1	4,120	5,518	7,518	4,402	5,150.00	547
United States	14	48,034	58,895	79,048	47,883	59,982.65	105,989
Totals, March, 1924	67	221,431	271,907	357,535	221,710	272,543.53	390,869
Totals, March, 1923	72	221,318	306,447	363,971	224,272	270,466.85	398,007
Totals, March, 1922	45	102,092	127,444	171,129	104,701	114,722.68	87,163

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up approximately 54.8 per cent of the total commercial transits of the Canal during March, 1924, comprised 58.5 per cent of the Panama Canal net tonnage, and carried approximately 60 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in March, 1924, classified according to nationality of vessels, by directions, and the combined traffic in both directions, together with the totals for March, 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	56	216,356	272,138	348,802	216,276	$241,537.63	173,990
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	2,572
Danish	4	9,871	12,049	15,490	9,603	11,038.46	4,036
Danzig	1	6,502	8,167	8,953	5,119	5,880.24	.....
Dutch	4	16,987	21,226	27,209	17,004	21,233.75	17,720
French	3	12,608	14,315	17,125	10,654	15,760.00	11,394
German	8	24,119	32,583	39,255	24,249	30,148.75	26,761
Japanese	7	26,912	32,385	40,933	26,348	33,473.75	33,131
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,100
Norwegian	4	12,338	15,820	19,798	12,394	13,347.41	11,250
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	810
Peruvian	2	2,504	5,364	7,922	3,941	3,130.00	1,081
Spanish	1	3,017	3,844	5,205	3,226	3,771.25	226
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	6,113
United States	118	496,973	622,730	798,976	495,757	514,112.26	328,370
Totals, March, 1924	212	838,815	1,055,672	1,348,476	836,248	906,718.50	623,548
Totals, March, 1923	233	919,304	1,141,282	1,444,048	911,594	975,666.25	678,488
Totals, March, 1922	138	472,020	586,041	724,316	461,154	580,374.55	581,952
Pacific to Atlantic.							
British	50	204,567	247,614	321,108	203,971	51,904.13	329,078
Chilean	2	5,714	7,268	10,870	6,139	7,142.50	9,036
Danish	1	4,223	5,338	6,650	4,247	5,278.75	8,483
Danzig	2	12,015	16,083	17,940	10,292	15,018.75	27,330
Dutch	5	14,150	20,652	23,003	13,991	17,687.50	25,600
French [1]	6	21,653	22,804	28,997	18,680	32,014.65	32,060
German	8	25,062	33,447	39,833	24,410	31,327.50	48,014
Italian	3	8,714	9,864	12,871	7,660	10,689.25	8,598
Japanese	7	28,086	32,575	40,908	27,055	34,746.75	44,539
Norwegian	7	21,508	28,148	32,237	20,389	26,800.30	48,49
Panaman	2	2,189	2,485	3,437	2,189	2,723.25	2,619
Peruvian	3	4,010	8,315	12,666	6,614	5,012.50	3,549
Spanish	2	6,292	8,969	11,239	6,451	7,865.00	5,727
Swedish	2	6,350	8,897	9,731	7,419	7,937.50	11,277
United States	117	508,696	628,038	807,245	508,340	634,258.25	1,044,524
Totals, March, 1924	217	873,229	1,080,407	1,378,735	867,847	1,090,406.58	1,648,924
Totals, March, 1923	176	689,054	846,910	1,086,109	690,625	852,032.19	1,262,440
Totals, March, 1922	96	314,739	389,770	502,655	314,880	376,352.21	378,137
Combined traffic.							
British	105	420,923	519,752	669,910	420,247	493,441.76	503,068
Chilean	3	9,226	11,973	18,180	10,115	11,532.50	11,608
Danish	5	14,094	17,387	22,140	13,850	16,317.21	12,513
Danzig	3	18,517	24,250	26,893	15,411	20,898.99	27,330
Dutch	9	31,137	41,878	50,212	30,995	38,921.25	43,320
French [1]	9	34,261	37,119	46,122	29,334	47,774.65	43,454
German	16	49,181	66,030	79,088	48,659	61,476.25	74,775
Italian	3	8,714	9,864	12,871	7,660	10,689.25	8,598
Japanese	14	54,998	64,960	81,841	53,403	68,220.50	77,670
Jugo-Slavic	1	2,694	3,987	4,289	2,705	3,367.50	6,100
Norwegian	11	33,846	43,968	52,035	32,783	40,147.71	59,740
Panaman	3	4,352	4,944	6,841	4,352	5,427.00	3,429
Peruvian	5	6,514	13,679	20,588	10,555	8,142.50	4,630
Spanish	3	9,309	12,813	16,444	9,677	11,636.25	5,953
Swedish	3	8,699	12,707	13,536	10,252	10,761.25	17,390
United States	235	1,005,669	1,250,768	1,606,221	1,004,097	1,148,370.51	1,372,894
Totals, March, 1924	429	1,712,044	2,136,079	2,727,211	1,704,095	1,997,125.08	2,272,472
Totals, March, 1923	409	1,608,358	1,988,192	2,532,157	1,602,219	1,827,718.44	1,940,928
Totals, March, 1922	234	786,759	975,811	1,226,971	776,034	956,726.76	960,089

[1] Includes 1 French cruiser, measured for displacement tonnage; tonnage figures not included, but tolls included.

VESSELS WITHOUT CARGO.

The number of vessels transiting the Canal in ballast is shown in the following statement, the vessels being grouped according to flag:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
British	8	52,769	$38,311.86	2	9,269	$6,673.68
Danzig	1	8,167	5,880.24			
United States	51	301,164	216,999.39			
General cargo ships:						
British	8	28,671	20,643.12			
Danish [1]	3	10,602	9,125.99			
Norwegian	2	8,953	6,446.16			
Panaman				1	26	19.50
United States	8	39,987	28,913.97			
Totals	81	450,313	326,320.73	3	9,295	6,693.18

[1] Includes one vessel of 1,827 tons, and one of 3,092 tons, which paid tolls at laden rate on account of excess of bunker fuel.

CLASSIFICATION OF VESSELS.

A further classification of commercial vessels passing through the Canal during the month of March, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tankships:						
Laden	3	15,641	$17,097.50	67	418,096	$435,826.65
Ballast	60	362,100	261,191.49	2	9,269	6,673.68
General cargo ships:						
Laden	128	589,718	563,300.27	147	653,016	647,886.75
Ballast	21	88,213	65,129.24	1	26	19.50
Totals	212	1,055,672	906,718.50	217	1,080,407	1,090,406.58
Steamers	198	966,847	854,614.00	204	1,028,238	1,042,144.58
Motor ships	12	58,681	51,947.00	10	51,999	48,185.00
Motor schooners	2	144	157.50	3	170	77.00
Totals	212	1,055,672	906,718.50	217	1,080,407	1,090,406.58

Of the 402 steam vessels, 282 were oil burners, 117 coal burners, and 3 burned either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of March, 1924. If tolls had been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Battleship				1	[1] 31,400	$15,700.00
Cruiser	1	[1] 3,200	$1,600.00			
Destroyers	5	[1] 6,075	3,037.50	4	[1] 4,860	2,430.00
Mine layer	1	[1] 3,800	1,900.00			
Mine sweeper	1	[1] 950	475.00			
Submarines	2	[1] 990	495.00	2	[1] 990	495.00
Supply ships	2	[2] 11,614	13,936.80			
Transport	1	[3] 3,908	4,689.60			
Tugs	2	[1] 2,000	1,000.00			
U. S. Army vessels:						
Launch	1	[1] 10	5.00			
Transports	2	[3] 7,627	9,152.40	2	7,627	9,152.40
Totals	18	40,174	36,291.30	9	44,877	27,777.40

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls, carried cargo as follows:

	Tons.
Atlantic to Pacific	9,925
Pacific to Atlantic	469
Totals	10,394

The following statements shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

	Number.	Tonnage.	Tolls.
Atlantic to Pacific	7	24	$19.35
Pacific to Atlantic	6	17	15.60
Totals	13	41	34.95

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of March, 1924, are shown in the following tabulations:

	Cristobal.	Balboa.	Total.
Local cargo arriving...tons	45,105	76,660	121,765
Local cargo shipped...tons	2,724	523	3,247
Transit cargo arriving...tons	2,276,095	2,240,880	4,516,975
Transit cargo clearing...tons	2,255,047	2,249,584	4,504,631
Cargo received for transshipment...tons	28,146	103	28,249
Cargo transshipped...tons	29,777	156	29,933
Coal arriving...tons	31,343	.....	31,343
Vessels supplied with bunker coal:			
Army and Navy vessels	1	1	2
Commercial, other than Panama Railroad	51	2	53
Panama Railroad Steamship Line	1	.....	1
Total vessels supplied with coal	53	3	56
Coal supplied to above vessels:			
Army and Navy vessels...tons	130	11	141
Commercial, other than Panama Railroad...tons	17,687	26	17,713
Panama Railroad Steamship Line...tons	40	.....	40
Total coal supplied to vessels...tons	17,857	37	17,894
Coal issued, miscellaneous:			
Panama Canal departments...tons	323	49	372
U. S. Army, excepting vessels...tons	315	.....	315
Individuals and companies...tons	303	.....	303
Totals	18,798	86	18,884
Total issues from Panama Canal deposits:			
March, 1924...tons	18,798	86	18,884
March, 1923...tons	18,331	86	18,417
March, 1922...tons	20,969	2,822	23,791
Coal on hand, April 1, 1924...tons	100,911	.....	100,911
Coal on hand, March 1, 1924...tons	88,365	.....	88,365
Coal received during month...tons	31,344	[1] 86	31,430
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments...bbls	4,962.50	30,214.98	35,177.48
Panama Railroad Co...bbls	1,308.97	287.40	1,596.37
Army and Navy...bbls	.....	119.50	119.50
Total issues and sales...bbls	6,271.47	30,621.88	36,893.35
Fuel oil received during March, 1924...bbls	.....	46,998.73	46,998.73
Fuel oil on hand, April 1, 1924...bbls	20,348.33	71,938.80	92,287.13
Diesel oil sold during March, 1924...bbls	49.48	15.14	64.62
Diesel oil on hand, April 1, 1924...bbls	40,912.70	605.61	41,518.31
Oil pumped for individuals and companies...bbls	462,545.20	646,401.66	1,108,946.86
Miscellaneous transfers...bbls	.....	555.11	555.11
Gasoline pumped for Panama Canal...bbls	715.64	1,515.26	2,230.90
Gasoline pumped for individuals and companies...bbls	.....	2,725.02	2,725.02
Total gasoline and fuel oil handled...bbls	469,581.79	728,832.80	1,198,414.59

[1] Borrowed from U. S. Navy at Balboa, returned at Cristobal.

	Cristobal.	Balboa.	Total.
Admeasurement of vessels:			
U. S. equivalent certificates issued or made	18	6	24
Measured for Panama Canal net tonnage	1	1	2
Remeasured for Panama Canal net tonnage	21	10	31
Panama Canal net tonnage corrected	.....	6	6
U. S. equivalent tonnage corrected	10	16	26
Services of harbor equipment:			
Tugs, total operating hours	418½	304¾	723¼
Launches, total operating hours	1,269½	1,473	2,742½
Scows, total operating days	.....	1	1
Revenues from tug service, pilotage, etc.:			
Tug revenue	$12,347.50	$9,581.25	$21,928.75
Pilotage	14,923.00	7,554.00	22,477.00
Seamen	7,324.00	7,712.00	15,035.00
Launch service	1,629.50	3,071.17	4,700.67
Wharfage	7,664.53	5,350.20	13,014.73
Ships measured	5.00	.....	5.00
Miscellaneous cash collections	1,397.10	455.00	1,852.10
Vessels repaired at Panama Canal shops:			
Commercial	43	22	65
U. S. Army and Navy	11	6	17
Canal equipment	7	16	23
Vessels drydocked:			
Commercial	5	2	7
Panama Canal equipment	3	2	5
U. S. Army and Navy	2	2	4
Clearances issued	254	237	491
Bills of health issued	260	237	497

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net. tonnage.
Ships entering.						
All vessels, including those transiting Canal	496	3,132,668	1,974,507	464	2,885,446	1,855,092
Vessels entering port but not transiting Canal	47	253,434	152,148	21	77,781	53,096
Vessels transiting Canal and handling passengers and cargo at terminals	68	390,303	234,950	56	311,784	500,124
Ships clearing.						
All vessels, including those transiting Canal	495	3,127,387	1,972,671	463	2,881,359	1,852,294
Vessels entering port but not transiting Canal	50	266,958	161,121	21	74,295	49,894
Vessels transiting Canal and handling passengers and cargo at terminals	66	388,978	233,916	56	311,784	500,124

MOVEMENTS OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	1,049	526	1,575	24	14	38
From Pacific ports	189	80	269	164	161	325
Total disembarking	1,238	606	1,844	188	175	363
Embarking:						
For Atlantic ports	1,156	757	1,913	31	30	61
For Pacific ports	169	62	231	128	90	218
Total embarking	1,325	819	2,144	159	120	279
Remaining on board vessels:						
From Atlantic to Pacific ports	1,188	2,835	4,023	1,207	2,716	3,923
From Pacific to Atlantic ports	931	906	1,837	1,206	1,501	2,707
From Atlantic to Atlantic ports	2,143	145	2,288	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	38	257	295
Total remaining on board	4,262	3,886	8,148	2,451	4,474	6,925
Total arriving	5,500	4,492	9,992	2,639	4,649	7,288
Total departing	5,587	4,705	10,292	2,610	4,594	7,204

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of March, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$53.60	$742.90	$1,329.45	$65.79	$235.26	$2,427.00
Panama Railroad vessels	65.22	127.26	1,715.27	634.06	387.12	2,928.93
Other commercial vessels	1,216.33	6,354.16	16,143.62	62.61	1,136.59	24,913.31
Total sales, March, 1924	1,335.15	7,224.32	19,188.34	762.46	1,758.97	30,269.24
Total sales, March, 1923	1,542.86	5,746.26	22,662.45	.....	3,835.22	33,786.79
Total sales, March, 1922	1,255.62	5,921.65	19,017.93	.....	1,418.64	27,613.24
Sales at Balboa to:						
U. S. Government vessels	374.02	2,080.51	13,133.80	181.87	860.25	16,630.45
Other commercial vessels	367.25	1,894.34	7,045.48	233.67	5,400.13	14,940.32
Total sales, March, 1924	741.27	3,974.85	20,179.28	415.54	6,260.38	31,571.32
Total sales, March, 1923	3,700.49	15,463.70	72,820.75	2,610.39	20,654.81	115,250.14
Total sales, March, 1922	1,644.90	10,243.14	30,710.56	910.67	1,967.35	45,476.62

The aggregate sales to Government vessels during the month were $19,057.45; to Panama Railroad vessels $2,928.93; to other commercial vessels $39,854.18; making a grand total of sales to all vessels of $61,840.56.

LOCK OPERATIONS.

Continuing the triennial overhaul of the gates, valves, and all underwater parts of Gatun Locks, the east chambers were put out of commission the morning of March 3. The overhaul was completed and the chambers were put in service on the morning of the 23d. As during February, all ships were put through on the day of arrival by working three 8-hour shifts on the flight that was in commission.

The extra force assembled for the purpose of the overhaul was let go, on the completion of the work. Some were transferred back to the departments or divisions from which they were borrowed, but the major portion were discharged.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages during the month of March, 1924, as compared with the corresponding month in 1923 and 1922:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	March 1924.	March 1923.	March 1922.
Gatun	212	201	413	7	10	17	430	434	235
Pedro Miguel	214	208	422	7	15	22	444	154	247
Miraflores	214	207	421	6	15	21	442	465	233
	Number of vessels put through locks.								
Gatun	225	219	444	22	34	56	500	542	279
Pedro Miguel	224	214	438	29	38	67	505	599	285
Miraflores	224	214	438	29	39	68	506	586	286

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	26	27	28
Panama Canal equipment	30	40	40

The total consumption of water for lockages, maintenance, and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,359,700,000	911,215,000	876,380,000
Leakage	25,000,000	10,330,000	20,000,000
Maintenance	10,450,000	.....	.....
Totals, March, 1924	1,394,150,000	921,545,000	896,380,000
Totals, February, 1924	1,716,480,000	1,235,210,000	1,207,350,000
Totals, January, 1924	2,027,120,000	1,839,510,000	1,729,490,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of March, 1924, are shown in comparative form:

Rainfall for month.	March, 1924.	March, 1923.	March—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	.83	T	1.93	T	.57
Central section	.69	.21	4.28	.09	.68
Atlantic section	1.55	.75	7.65	.58	1.79
Maximum recorded on any one day	1.19	.60	[1] 12.25	.....	.....
Gatun Lake watershed	.70	.59	2.11	.24	.76
Chagres River watershed above Alhajuela	.54	.95	4.58	.22	1.08
Maximum recorded for month at any one point	1.55	1.75	9.71	.....	.....
Minimum recorded for month at any one point	.01	.00	.....	.00	.....
Hydrography.	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*
Discharge of Chagres River at Alhajuela	565	724	1,625	382	730
Maximum momentary discharge for the month	780	1,155	[2] 19,400	.....	.....
Gatun Lake watershed total yield	962	883	1,792	594	1,115
Gatun Lake watershed net yield	93	−84	1,250	−385	257
Draft on Gatun Lake for lockages and power	[4] 1,943	2,488	2,488	[3] 1,148	[3] 1,814

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] March 31, 1910. [3] Not including March, 1914. [4] Gatun hydroelectric resumed full power load on March 10.

SEISMOLOGY

Sixty-six seismic tremors were recorded at Balboa Heights during the month. All but one of these disturbances had their origin in Costa Rica.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., as compared with March, 1923, and 1922, are shown in the following tabulation:

Item.	March, 1924.	March, 1923.	March, 1922.
Gross output, KWH:			
Gatun hydroelectric station	3,639,300	4,816,000	4,728,100
Miraflores steam plant	1,263,540	100	400
Power distributed to consumers.....KWH..	4,271,288	4,123,009	3,983,218
Loss of power in plants, accessories, transmission, and transformers.....KWH..	631,552	693,101	745,282
Per cent of loss of power to gross output	12.88	14.39	15.76
Water consumption.....cubic feet..	2,923,666,209	3,567,034,663	3,687,402,000
Oil consumption.....barrels..	10,554.50	1,225	1,911

On March 10, 1924, the dry-season load was transferred from the Miraflores steam plant to the Gatun hydroelectric station.

Twenty-nine work orders covering electrical repairs and installations on 23 vessels were completed during the month, as well as the usual operation, maintenance, and repair work.

There were 236 work orders issued during the month for work performed by the different sections of the Electrical Division, as compared with 207 during February, 1924.

SHOPS, FOUNDRY, AND DRY DOCK WORK.

During the month, miscellaneous repairs were made on 61 vessels at Cristobal, and 44 at Balboa. Of these, 10 were in dry dock at Cristobal and 6 at Balboa. The more important work during the month included the following:

The steamship *La Isla* was docked and cleaned, new shoe and rudder post installed, miscellaneous copper sheathing renewed, main engine repaired and lined up, two new deck bitts installed, and miscellaneous repairs to auxiliaries effected.

The barge *Darien*, previously laid up in Gatun Lake, was placed in commission. All machinery was tested out, repaired and adjusted, and ship's sides were wire-brushed and painted.

The United States Army mine planter *Graham* was docked, cleaned, and painted. Boilers were repaired and rebricked, and general repairs made to engines and auxiliaries.

The steamship *Izgled*, which had run against the bank of the Cut because of broken steering gear and had filled forward, was placed in the dry dock and repairs were made to her bottom. Fifteen plates were renewed, and 35 frames spliced.

A variety of repairs were performed for the scout cruiser *Cincinnati*, the principal work being in connection with the evaporator installation.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	March, 1924.			February, 1924.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	5	489	19,452	10	754	36,427½
Steel	3	345	60,820	3	318	39,605½
Nonferrous	4	486	12,245¾	8	1,401	12,463

There were 617 job orders on hand at the beginning of the month, 640 were authorized during the month, and 670 completed, leaving 587 on hand at the close of the month.

There were 361 standing orders on hand at the beginning of the month, none were authorized during the month and none were completed, leaving 361 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The output of the three filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	March, 1924.	March, 1923.	March, 1922.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	664,221,500	781,838,250	686,383,250
Filtration plants	390,442,000	447,734,000	402,585,000
Water consumed by Panama	97,509,000	94,535,000	82,952,000
Water consumed by Colon	55,157,500	68,764,000	58,020,500
Sales of water to vessels	8,935,559	14,185,672	9,470,092

The installation of iron plates on the baffle piers of the spillway of Gatun Dam was begun and advanced to 10 per cent of completion. The extension and enlargement of the water system in the Ancon-Balboa District for better fire protection was 20 per cent completed at the end of March. Extensive resurfacing of streets was done in Gatun and Colon.

Wash drilling on the site of the new electric power plant at Miraflores was carried to 60 per cent of completion; 160 feet of hole were drilled during the month.

For the construction of the south end of the Pedro Miguel-Camp Gaillard Road, the Municipal Division operated a steam shovel throughout the month, and furnished necessary supervision of Army labor. This job is 50 per cent completed.

DREDGING.

All slides were quiescent during the month of March, 1924, with the exception of West Lirio, south.

The slide at West Lirio, south, the north shoulder of which had partially broken up during the period of greatest activity in October, 1923, continued to settle down between stations 1727 and 1731. The dredge has been able to take care of the material as rapidly as the pushout takes place. The total yardage removed from this slide since October 28, 1923, is 977,210 cubic yards.

There was no interference with Canal traffic during the month, either from slides or from the operations of the Dredging Division. The total excavation during the month was 321,150 cubic yards, as follows:

Cubic yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
56,600	2,800	53,800	Maintenance.....	Gaillard Cut, West Lirio, south.....	*Gamboa.*
52,550	7,050	45,500	Maintenance.....	Gaillard Cut, La Pita improvement project.....	*Gamboa.*
3,700	1,500	2,200	Maintenance.....	Gaillard Cut, Buena Vista slide.....	*Gamboa.*
27,250	5,450	21,800	Maintenance.....	Gaillard Cut, barge repair slide.....	*Gamboa.*
51,050	5,100	45,950	Maintenance.....	Pacific entrance, Miraflores.....	*Cascadas.*
23,300	2,300	21,000	Maintenance.....	Pacific entrance.....	*Cascadas.*
70,100	70,100	.....	Maintenance.....	Gaillard Cut, Cucuracha reach.....	*No. 86.*
2,700	2,700	.....	Maintenance.....	Gaillard Cut, east and west.....	*No. 86.*
33,900	33,900	.....	Maintenance.....	Pacific entrance.....	*No. 86.*

On March 31, the new floating, electrical relay station, with pumps installed in the hull of old sand and rock barge *No. 3*, was given an initial service test handling material from dredge *No. 86*, working in West Culebra slide area. With 5,600 feet of pipe line between the dredge and relay barge, and 4,139 feet of pipe line between relay barge and discharge, a total distance of 9,739 feet, a pressure of 110 pounds was noted at the discharge, at an elevation of 61 feet above water line at the dredge.

It is planned to use this barge for discharging suction dredge material to high elevations along the banks of Gaillard Cut, or through long pipe lines at Balboa or Cristobal, and the indications are that it will be possible and feasible to pump to elevations of over 200 feet, which exceeds the requirements for which the outfit was designed.

The plant is portable, containing necessary auxiliary pumps for water service, transformers, and electrical equipment for stepping down the transmission line potential of 11,000 volts to 2,200 operating voltage. It may be used at any point where 3-phase power at 11,000 or 2,200 volts is available. Arrangement is provided for by-passing the second pump when desired, for use on shorter or less elevated pipe lines.

During the one day on which the relay barge was operated in March, there were no delays to operation chargeable to the relay barge, with the exception of the usual short delays incident to removing large stones from pumps.

VITAL STATISTICS.

A total of 171 deaths occurred during the month of March, 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 16.75 per thousand. The leading causes of death were: Pneumonia (broncho and lobar), 34; tuberculosis (various organs), 25; diarrhea and enteritis (including colitis), 12; nephritis (acute and chronic), 12; organic diseases of the heart, 8; cancer, 7; and apoplexy, 4. Of the total deaths, 63, or 37 per cent occurred among children under 5 years of age. There were 20 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 290 live births reported during the month, and 10 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 29.39 per 1,000 population. Deaths among children under 1 year of age numbered 27, giving an infant mortality rate of 93.10 per thousand live births.

The total number of malaria cases reported during the month was 85. Of these 1 case was reported from Panama City, none from Colon, 32 from the Canal Zone, and 52 originated outside of our sanitated area. Of the total, 6 were employees, 29 were nonemployees, 50 were Army and Navy. There were 2 deaths from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of March 31, 1924.			Comparative totals.		
	Men.	Women.	Children.	March, 1924.	March, 1923.	March, 1922.
Americans.....	2,369	1,900	2,082	6,351	6,320	6,527
Europeans.....	74	29	69	172	169	236
West Indians.....	4,110	2,582	6,065	12,757	12,777	12,120
Totals, March, 1924.....	6,553	4,511	8,216	19,280	.....	.....
Totals, March, 1923.....	6,547	4,644	8,075	.....	19,266	.....
Totals, March, 1922.....	6,510	4,487	7,886	.....	.....	18,883

WORKING FORCE.

The following tabulations shows the number of gold and silver employees as of March 19, 1924, in comparison with February, 1924, and March, 1923:

	As of March 19, 1924.			Total employees.	
	Gold.	Silver.	Total.	February, 1924.	March, 1923.
Operation and Maintenance:					
Office	30	52	82	75	83
Electrical	159	218	377	357	373
Municipal Engineering	70	510	580	583	542
Lock Operation	226	1,141	1,367	1,603	825
Dredging	159	868	1,027	1,039	948
Mechanical	410	854	1,264	1,240	961
Marine	169	472	641	700	605
Fortifications	12	125	137	34	118
Totals	1,235	4,240	5,475	5,631	4,455
Supply Department:					
Quartermaster	155	1,144	1,299	1,266	1,054
Subsistence	12	107	119	126	141
Commissary	175	830	1,005	992	1,082
Cattle Industry, plantations	5	184	189	189	325
Hotel Washington	8	95	103	104	100
Transportation	32	156	188	192	187
Totals	387	2,516	2,903	2,869	2,889
Accounting Department	192	8	200	200	189
Health Department	225	713	938	930	925
Executive Department	487	260	747	730	721
Totals	904	981	1,885	1,860	1,835
Panama Railroad:					
Superintendent	45	261	306	299	333
Transportation	65	110	175	177	174
Receiving and Forwarding Agent	72	857	929	842	869
Coaling stations	61	483	544	570	723
Totals	243	1,711	1,954	1,888	2,099
Grand totals, March, 1924	2,769	9,448	12,217	.....	.....
Grand totals, February, 1924	2,810	9,438	.....	12,248	.....
Grand totals, March, 1923	2,533	8,745	.....	.....	11,278

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and the corresponding month in 1923, were as follows:

	March, 1924.	February, 1924.	March, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$347,987.13	$363,155.46	$225,532.86
For other Panama Canal departments	5,450.53	11,965 88	3,881.16
Totals	353,437.66	375,121.34	229,414 02
Cash sales on the Isthmus:			
Stock	22,964.00	21,086.26	36,318.04
Fuel oil	117.95	3,269.39	877.42
Scrap	558.32	576.28	1,505.69
Obsolete and second-hand material	3,776.14	2,123.40	1,151.68
Totals	27,416.41	27,054.33	39,852.83

Respectfully,

M. L. WALKER,

Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 26, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Wilhelm Hemsoth	18	9.35	20	6 18	20	13.58	20	15.10	German	W. Hemsoth	407.0	54.4	24 6	Hamburg	San Francisco	General	8,042	6,636	4,888
Aladdin [1]	19	16 20	20	6 30	20	14.36	20	15.34	American	Standard Transportation Co	453.0	56.0	16.0	Providence	San Pedro	Ballast		7,408	5,112
Ashbee [2]	19	11.20	20	8.30	20	15.36	20	16.46	American	Grace Line	333.8	48.0	20 6	New York	Buenaventura	General, salt	3,004	4,101	2,687
Agwisea [1]	20	9.45	20	9 59	20	17.05	20	18.10	American	International Shipping Co	468.3	62.7	22.0	New York	Los Angeles	Ballast		9,802	6,961
Saint Joseph	20	0.40	20	12.00	20	19.00	20	19.55	French	French Line	398.0	50.3	18.0	Havre	Valparaiso	General	1,330	5,979	4,170
Pomona	20	1.10	20	13.30	20	21.47	20	23.07	American	Isthmian Lines	457.6	56.0	30.8	Baltimore	Los Angeles	Steel, general	10,791	8,300	6,026
Ecuador	19	23 50	21	6 13	21	13.44	21	22.16	American	Pacific Mail Steamship Co	380.6	47.0	23.10	New York	San Francisco	General, steel	3,092	5,926	4,178
Ansaldo San Giorgio I [3]	20	17.17	21	6 06	21	14 31	21	23.05	Italian	Saturno Otello	385.0	49.0	17.7	Genoa	Valparaiso	General	1,421	5,657	4,069
H. M. Storey [1]	20	15 35	21	7.12	21	14.38	21	15.55	American	Standard Oil Co	500.0	68.2	21.0	New York	Los Angeles	Ballast		11,224	7,849
Lubrico [1]	21	6.20	21	7.12	21	15 20	21	18 58	American	Standard Oil Co	425.0	57.2	19.0	New York	Los Angeles	Ballast		7,204	4,829
New Britain	20	18.53	21	8.50	21	16.34	21	20.16	American	Williams Steamship Line	386.8	52.0	18.0	New York	Seattle	General	3,460	5,684	4,082
Calgarolite [1]	21	7.55	21	9.50	21	17.12	21	20.55	British	Imperial Oil Co	463.3	60.2	18.6	New York	San Pedro	Ballast		8,491	6,060
Zenon	20	16.17	21	10 50	21	18.29	21	19.35	French	French Line	425.1	55.0	23.2	Havre	Vancouver	[7]	5,312	6,982	4,834
Sujerseyco	21	9 50	21	11.05	21	19.05	21	20.06	American	Transmarine Corporation	324.0	46.2	21.9	Newark	San Francisco	General	4,000	3,984	2,612
Teno	21	7.30	21	12.10	21	20.05	22	1.39	Chilean	Chilean Line	421.8	56 0	22 5	New York	Valparaiso	General	1,657	7,758	4,672
Gen. Wm. M. Graham [3]			21	8.50	21	16 28			American	U. S. Army	156.0	32.0		Cristobal	Balboa	Ballast			
Sailer [4]	18		21		21	10.58			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		2	2
Golden Rod [4]	16		21		21	10.58			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		4	4
Darien [4]			21		21	12.09			American	U. S. Navy				Cristobal	Gatun Lake	Ballast			
Dorset	21	10.51	22	6.10	22	14.44	22	15.51	British	Federal Steam Navigation Co	460 0	58.0	30.0	Glasgow	Auckland	General	6,105	9,188	6,581
Steel Inventor	21	18.20	22	7 05	22	15.18	22	16.28	American	Isthmian Lines	425.0	57.0	26.0	Philadelphia	Java	Steel, general	8,572	7,611	5,450
Victolite [1]	21	20.35	22	8.30	22	16.43	22	17.35	British	Imperial Oil Co	500.0	68.0	24.0	Charleston	Talara	Ballast		11,049	7,732
Pearl Shell [1]	21	23.50	22	13.10	22	20.40	22	21.40	British	Asiatic Petroleum Co	411.6	53.4	20.10	London	San Pedro	Ballast		6,177	4,403
Cambrai [5]	22	13.50	23	6.10	23	13.55	23	15.05	American	U. S. Army	448.0	58.0	24.6	Brooklyn	San Francisco	Army supplies	411		
Scottish Maiden [6]	22	15.12	23	6.15	23	14 39	23	16.00	British	Tankers Limited	425.0	57.0	18.8	Rotterdam	San Pedro	Ballast		7,115	4,966
La Brea [1]	22	16.10	23	7.20	23	14.50	23	17.40	American	Union Oil Co	435.0	56.2	21.6	Philadelphia	San Pedro	Ballast		7,150	4,765
Montrolite [1]	22	18.05	23	7.25	23	15.35	23	17.40	British	Imperial Oil Co	421.5½	57.0	19.0	Charleston	Talara	Ballast		7,378	4,752
Walter A. Luckenbach	22	20.30	23	8 43	23	16.29	23	17.40	American	Luckenbach Line	446.5	56.1	28.0	Boston	Seattle	General	7,512	8,785	6,567
Panama [2]	22	20.43	23	9 50	23	17.09	23	18.10	Danish	United Fruit Co	427.1	55.2	27.4	Copenhagen	Seattle	General	8,937	7,027	5,341
Charles Pratt [1]	22	23.35	23	10 47	23	17.55	23	19.02	American	Standard Oil Co	500.0	68.0	18.9	New York	San Pedro	Ballast		5,627	7,492
King Howel	22	22.05	23	11.15	23	19.10	23	21.00	British	Pacific Steam Navigation Co	400.2	52.3	26.1	Antwerp	Auckland	Fertilizer	6,900	5,797	4,078
Rio Gatun [4]	22		23		23	13.03			Panaman	B. Rodriquez				Cristobal	Gatun Lake	Unknown		8	8
Agwihavre [1]	24	0.40	24	6 30	24	13.13	24	15.50	American	International Shipping Co	480.5	66.0	19.6	Baltimore	Los Angeles	Ballast		9,394	6,305

[1] Tanker. [2] Motor ship. [3] Mine planter. [4] Launch. [5] Transport. [6] Motor ship (tanker). [7] Iron bars and cement.

H. H. Rogers [1]	24	1.45	24	7.08	24	14.30	21	15.35	American	Standard Oil Co	500.0	68.0	18.6	New York	San Pedro	Ballast		10,333	7,475
Santa Ana	23	23.10	24	8.25	24	15.26	24	17.35	American	Grace Line	373.9	51.6	25.6	New York	Talcahuano	General	2,873	5,776	4,081
Mantaro	22	16.35	24	10.26	24	16.45	24	20.53	Peruvian	Peruvian Line	367.3	46.0	18.7	Covenas	Callao	Cattle, general	738	4,838	2,959
San Francisco	24	7.00	24	11.00	24	18.51	24	19.56	American	Isthmian Line	405.0	52.0	26.3	New York	San Diego	General	6,649	6,220	4,432
Manchuria	24	12.48	24	13.10	24	20.09	25	2.45	American	Panama-Pacific Line	600.0	65.3	26.0	New York	San Francisco	General	2,069	17,044	11,488
City of Adelaide	24	2.50	24	13.40	24	21.04	24	22.19	British	Hall Line	433.0	57.4	23.0	New York	Auckland	General	5,750	8,547	6,646
Cape Ann [1]	24	13.45	24	13.50	24	21.59	25	2.45	American	Cape Steamship Co	425.8	57.0	18.0	New York	San Pedro	Ballast		7,484	5,216
Rotorua	24	19.33	25	6.17	25	13.35	25	23.46	British	New Zealand Shipping Co	545.0	58.0	24.6	London	Wellington	General	6,500	12,846	9,439
Eemdijk	24	7.10	25	6.20	25	14.29	25	15.35	Dutch	Holland-American Line	469.7	58.2	26.4	Rotterdam	San Francisco	General	8,968	8,514	6,066
Eastern Prince	24	20.25	25	7.24	25	16.17	25	17.20	British	Furness-Prince Line	468.0	58.3	25.8	New York	Yokohama	General	7,687	8,413	5,971
Hampton Roads [1]	24	22.45	25	7.30	25	15.19	25	16 25	American	McAllister Brothers (S. B.)	431.0	59.2	21.6	New York	San Pedro	Ballast		8,093	5,511
Dramatist	25	1.35	25	8.22	25	16.28	25	17.28	British	Harrison Line	410.0	52.3	21.0	New Orleans	Vancouver	Ballast		6,202	4,154
Suveric	25	5.15	25	11.10	25	19.50	25	21.00	British	Andrew Weir & Co	460.0	55.0	28.0	New York	Manila	General	8,500	8,271	6,249
Pennsylvanian	25	1.50	25	11.15	25	18.00	25	19.00	American	American-Hawaiian Line	407.7	53.7	23 0	New York	San Pedro	General	5,300	7,107	4,916
Diana Dollar	25	1.45	25	11.50	25	19.43	25	20.43	American	Dollar Line	429.0	55.2	17.3	Baltimore	Vancouver	General	2,144	7,582	5,521
Almelo	24	23.45	25	12.37	25	20.33	26	14.42	Dutch	Royal Netherlands W. I. Mail	440.0	62.6	21.7	Hamburg	Guayaquil	General	5,242	9,403	6,653
Roy [8]	24	.....	25	.....	25	13.10	.....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	([11])	.....	2	2
Barge No. 3	24	.....	25	.....	25	13.10	.....	.....	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	8	8
President Van Buren	25	17.30	26	6.20	26	13.03	26	14.46	American	Dollar Line	502.1	62.2	24.8	New York	San Francisco	General	940	12,023	8,495
Scottish Strath [1]	25	13 40	26	7.05	26	14.11	26	15.10	British	Anglo-Saxon Petroleum Co	440.0	54.0	19.0	Rotterdam	San Pedro	Ballast	.....	7,527	5,108
Amasis	25	21 40	26	8.05	26	15.35	26	16.30	German	Kosmos Line	438.7	55.3	23.6	Hamburg	Corral	General	6,585	7,286	5,174
Clement Smith [1]	26	1.35	26	9.45	26	16.27	26	17.34	American	Oil Transport Co	430.0	59.0	20.0	Boston	San Pedro	Ballast	.....	8,097	5,532
Hamlin F. McCormick	26	4.30	26	10.40	26	17.48	26	21.20	American	Chas. R. McCormick Co	335.0	50 0	20.6	New York	San Francisco	Sulphur	4,576	3,883	2,484
Santore	26	6.32	25	10.58	26	18.35	26	19.35	American	Ore Steamship Co	450.0	57.0	21.0	Baltimore	Cruz Grande	Ballast	.....	7,808	5,139
Killerig [9]	25	23.50	26	13.35	26	19.07	26	20.28	British	Lindsay Swan Hunter	172.0	30.0	13.9	Kingston	Guayaquil	Ballast	.....	.....	.....
Impco [10]	26	11.00	26	11.00	27	15.15	28	7.24	Panaman	Colon Import & Export Co	83.2	21.5	8.0	Colon	Panama	Ballast	.....	94	45

[1] Tanker. [8] Launch. [9] Tug. [10] Motor schooner. [11] Towing barge No. 3.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

France Maru	19	15.00	20	21.00	20	14.22	20	14.22	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Seattle	Falmouth	Wheat	7,854	6,902	4,658
Halsey [1]	19	17.24	20	7.07	20	15.55	20	15.55	American	C. D. Mallory & Co	435.0	56.0	28.0	San Pedro	New York	Crude oil	11,282	7,643	5,289
Bethelridge [1]	13	6 10	20	8.33	20	17.57	20	17.57	American	Walker & Daly	411.0	59.2	25.0	Los Angeles	New York	Crude oil	9,887	7,819	5,676
Horace Luckenbach	20	6.26	20	9.07	20	17.05	20	17.05	American	Luckenbach Line	445.0	58.0	25.4	Portland	Boston	Lumber, general	7,700	8,626	6,290
Nebraskan	20	9.51	20	10.52	20	18.40	20	18.40	American	American-Hawaiian Line	368.6	55.2	26.5	Tacoma	New York	Lumber	6,000	5,207	3,643
District of Columbia [1]	20	1.45	20	11.11	20	19.33	20	19.33	American	Walker & Daly	431.0	59.2	26.0	San Pedro	New York	Crude oil	9,661	8,097	5,431
Toluma	20	10.45	20	12.31	20	21.45	20	22.55	Norwegian	Grace Line, Inc	417.0	54.0	29.0	Punta Arenas	New York	General	9,727	7,176	5,219
Agwilake [1]	20	13.00	20	13.40	20	22.05	20	22.05	American	International Shipping Corp	468.3	62.7	28.6	San Pedro	New York	Crude oil	12,015	9,802	6,957
Paparoa	20	10.20	21	6.16	21	15.35	21	21.55	British	New Zealand Shipping Co	430.0	54.0	25.6	Dunedin	London	General	4,004	7,896	5,835
Sabine Sun [1]	20	19 40	21	7.13	21	16.10	21	23.25	American	Sun Oil Co	429.3	59.2	28.0	Los Angeles	Chester, Pa	Crude oil	10,500	7,621	5,277
Lake Flattery	20	24.00	21	8.04	21	16.35	22	16.35	American	Panama Railroad Steamship Line	251.0	43.0	18.0	Guayaquil	New York	General	1,516	2,783	1,176
Cape Recife	21	3 30	21	9.05	21	17.15	21	17.15	British	Mitchell Cotts & Co	418.0	54.0	25.0	Vancouver	Portsmouth	Lumber, general	5,269	5,966	4,241
Steel Ranger	21	6.00	21	9.47	21	18.25	22	0.50	American	Isthmian Steamship Line	424.2	56.2	26.6	Vancouver	London	General	8,381	7,611	5,450

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Robert E. Hopkins [1]	21	5.00	21	10.58	21	19.20	21	19.20	American	Tidewater Oil Co	424.4	58.2	26.0	San Pedro	New York	Crude oil	10,000	7,333	5,244
Atrato [12]	20	13.50	21	11.39	21	19.50	....	.....	Colombian	Colombian Transport Co	94.0	23.0	6.0	Buenaventura	Cristobal	Ballast	.....	160	77
Victorious	21	6.13	21	14.24	21	22.30	21	22.30	American	Tampa Interocean Steamship Co	440.0	56.0	29.0	Manila	New York	General	10,425	8,328	6,036
Anglo-Chilean	21	21.45	22	6.23	22	14.40	22	14.20	British	Lawther Latta & Co	470.0	53.8	30.0	Vancouver	Antwerp	Wheat in bulk	11,518	9,302	6,615
Saint Dunstan	21	23.30	22	7.20	22	15.10	22	16.40	British	Rankin, Gilmour & Co	400.0	53.0	25.3	Genoa Bay, V.I	Boston	Lumber, shingles	6,000	5,880	4,111
Rhodopis	22	0.10	22	8.30	22	16.50	23	1.23	German	Kosmos Line	435.0	53.2	24.6	Corral, Chile	Hamburg	General	6,501	7,525	5,154
Devon	22	1.53	22	9.28	22	17.45	23	13.25	British	Federal Steam Navigation Co	473.3	59.9	25.3	Auckland	London	Frozen, general	6,281	9,844	7,000
Agwibay [1]	22	6.00	22	9.55	22	17.40	22	17.40	American	Agwi Steamship Co	468.0	62.7	28.9	San Pedro	New York	Crude oil	12,000	9,776	6,903
Analdo No. 8	22	9.25	22	10.54	22	19.40	23	8.35	Italian	G. Bothirs	386.0	49.5	21.9	Valparaiso	Genoa	General	5,200	5,521	3,599
Orion [13]	18	19.35	22	11.17	22	19.35	22	19.35	American	U. S. Navy	514.0	65.0	.....	Balboa	Norfolk	Ballast	.....	.....	.....
Iowan	22	1.30	22	12.06	22	20.25	22	20.25	American	American-Hawaiian Line	407.7	53.7	24.3	Seattle	Boston	Lumber, general	5,480	7,091	5,202
Fred W. Weller [1]	22	14.40	23	6.34	23	15.25	23	15.25	American	Standard Oil Co. of N. J	500.0	68.0	29.6	San Pedro	New York	Crude oil	15,500	10,928	7,710
Robin Gray [1]	23	1.30	23	7.40	23	15.52	23	15.52	American	Seas Shipping Co. Inc., N. Y	424.8	55.3	24.6	Seattle	Boston	(14)	6,300	7,472	5,542
Sutorpeo	22	12.50	23	8.57	23	16.45	23	16.45	American	Transmarine Corporation	324.0	46.2	22.0	Portland	New York	Lumber, general	3,450	3,984	1,260
Watertown [1]	23	9.52	23	10.40	23	20.00	24	0.40	American	McAllister Brothers	416.9	56.2	26.6	San Pedro	Boston	Crude oil	10,000	6,706	2,428
Marore	23	14.30	23	15.05	24	13.22	24	13.22	American	Ore Steamship Co	550.0	72.2	31.6	Cruz Grande	Baltimere	Iron ore	19,500	15,551	4,297
Tresithney	23	15.50	24	6.17	24	14.30	24	15.35	British	Hain Steamship Co	472.5	59.3	21.6	Freemantle	New York	General	4,000	8,710	6,216
Delft	24	5.17	24	7.11	24	15.30	25	16.08	Dutch	Royal Netherlands W. I. Mail	370.0	52.6	19.0	Corral	Hamburg	General	3,052	5,862	4,393
Gleniffer	24	7.57	24	9.06	24	17.55	25	7.30	British	Graig Grain Co	500.1	62.3	29.6	Vancouver	Genoa	Wheat	10,986	11,339	8,007
Durango [1]	24	8.30	24	9.40	24	18.53	24	18.53	American	C. D. Mallory & Co	435.0	36.0	28.0	San Pedro	New York	Crude oil	10,800	7,643	5,301
Edgar F. Luckenbach	24	8.30	24	10.11	24	18.05	24	18.05	American	Luckenbach Line	425.0	57.3	22.5	San Pedro	Mobile	General	3,175	8,568	6,565
Aconcagua	24	9.20	24	11.16	24	19.28	25	3.50	Chilean	South American Line	422.8	56.2	28.0	Valparaiso	New York	General	4,774	7,758	4,705
Tiger	24	11.35	24	12.48	24	20.37	24	20.37	American	Standard Transportation Co	410.0	56.0	28.0	Portland	New York	Lumber	7,320	8,243	5,393
Fuji Maru	24	13.15	24	13.57	24	22.15	25	8.18	Japanese	Kabushiki Kaisha Kawasaki	405.0	53.0	27.0	Vancouver	Europe	Wheat	7,848	7,025	5,055
Canadian Highlander	24	15.15	25	6.12	25	16.05	25	23.35	British	Canadian Govt. Mer. Marine	400.0	52.4	25.6	Vancouver	Cardiff	Wheat, lumber	6,880	6,292	4,402
Swift Scout [1]	24	17.00	25	7.19	25	16.45	25	16.45	American	C. D. Mallory & Co	465.6	60.2	27.0	San Francisco	Fall River	(15)	10,000	8,473	6,104
David McKelvy [1]	24	18.05	25	8.35	25	17.17	25	17.17	American	Tidewater Oil Co	430.0	59.2	26.0	Los Angeles	New York	Crude oil	10,500	7,629	5,392
Schwarzwald	24	23.00	25	9.03	25	18.35	25	19.43	German	Hamburg-American Line	399.4	54.2	26.0	Valparaiso	Hamburg	Nitrate of soda	7,840	6,571	4,607
William G. Warden [1]	25	1.08	25	10.28	25	19.55	25	19.55	American	Standard Oil Co. of N. J	500.0	68.2	29.2	San Pedro	New York	Crude oil	15,200	10,524	7,600
Apple Branch	25	6.00	25	10.43	25	19.25	25	23.20	British	Nautilus Steamship Co	376.0	51.7	24.2	Corral	Liverpool	General	5,958	5,112	3,511
Willhilo	25	8.15	25	11.20	25	21.35	25	21.35	American	Williams Steamship Co., Inc	434.0	57.7	25.6	Seattle	Baltimore	General	8,297	7,983	5,882
Tainui	24	17.35	25	12.21	25	20.35	25	22.40	British	Shaw, Savill & Albion Co	477.8	61.1	25.0	Auckland	London	General	3,560	10,631	7,606
London Merchant	25	5.15	25	13.13	25	22.28	25	22.30	British	Furness, Withy & Co	450.0	58.1	30.0	Vancouver	Antwerp	General	9,405	8,416	5,720

[1] Tanker. [12] Motor ship. [13] Collier. [14] Lumber, canned goods, and general. [15] California tops, oil in bulk.

Scottish Monarch	25	16.35	26	6.14	26	14.17	26	15.30	British	Monarch Steamship Co	430.5	54.3	19.0	Wonganui	Dunkirk	Wool	326	6,321	4,548
Ucayali	25	17.15	26	7.20	26	15.25			Peruvian	Peruvian Line	374.7	46.7	17.6	Callao	Cristobal	General	724	4,466	2,405
Alvarado	25	19.30	26	8.26	26	15.20	26	23.50	British	Pacific Steam Navigation Co	303.0	43.0	16.8	Callao	New York	General	693	2,844	1,748
Munindies	25	21.52	26	9.10	26	16.30	26	16.30	American	Munson Steamship Co	370.0	53.0	25.0	Coos Bay	New York	Lumber	6,000	5,425	4,097
F. H. Hillman [1]	25	20.30	26	9.48	26	17.45	26	17.45	American	Standard Oil Co. of California	500.0	68.2	30.0	San Francisco	London	Gasoline	11,000	11,225	7,913
Santa Barbara	26	6.15	26	10.11	26	18.00	26	21.35	American	Pacific Mail Steamship Co	404.6	53.9	24.0	San Francisco	New York	General	5,121	6,789	4,746
H. C. Folger [1]	26	7.03	26	10.40	26	19.15	26	19.15	American	Atlantic Refining Co	435.0	56.0	27.4	San Pedro	Philadelphia	Gasoline	7,000	7,461	5,145

[1] Tanker.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 20	Ulua	United Fruit Co	Port Limon.	April 20	Ulua	United Fruit Co	New York via Habana.
April 20	Student	Harrison Line	Liverpool via Cartagena.	April 20	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
April 22	Cartago	United Fruit Co	New Orleans via Habana.	April 22	Student	Harrison Line	Demarara.
April 22	Pellerin de Latouche	French Line	Havre via wayports.	April 22	Cartago	United Fruit Co	New Orleans via wayports.
April 22	Abangarez	United Fruit Co	New Orleans via Habana.	April 24	Santa Marta	United Fruit Co	Colombian ports.
April 23	Santa Marta	United Fruit Co	New York via Kingston.	April 24	Carrillo	United Fruit Co	New York via Kingston.
April 23	Toloa	United Fruit Co	New York via Habana.	April 24	Abangarez	United Fruit Co	New Orleans via wayports.
April 24	Carrillo	United Fruit Co	Colombian ports.	April 24	Toloa	United Fruit Co	Port Limon.
April 24	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.	April 24	Ulysses and Darien	Panama Railroad Steamship Line	Norfolk.
April 24	Camden	United Fruit Co	Houston.	April 25	San Blas	United Fruit Co	Bristol via Santa Marta.
April 25	San Blas	United Fruit Co	Boston.	April 25	Camden	United Fruit Co	Baytown via wayports.
April 26	Parismina	United Fruit Co	New Orleans via Habana.	April 26	Pellerin de Latouche	French Line	Havre via wayports.

PORT OF BALBOA.

April 20	La Placenta	Union Oil Co. of California	Port San Luis.	April 21	La Placenta	Union Oil Co. of California	Los Angeles.
April 25	Ling Nam	Chungwha Navigation Co	Hongkong.	April 27	Ling Nam	Chungwha Navigation Co	Hongkong.

* Other than ships passing through the Canal.

Ships at Canal Repair Shops.

The following vessels were at the Balboa shops for repairs since the last report dated March 15:

For minor repairs: Steamships *Toco*, *Cecil County*, *San Gerardo*, *Halo*, *Miskianza*, *Lariston*, *Narvo*, motorship *Atrato*, launch *Grace*, steamships *Hugoton*, *Sugillenco*, *President Harrison*, motor ship *Geisha*.

In addition to the above vessels, the following is a list of ships with more than minor repairs:

Steamships *H. M. Flagler*, dismantle L. P. crank pin brasses, remetal, dress crank pin, assemble, remetal spare set of brasses; *Bethelridge*, raise h. p. and l. p. turbine casings, disconnect all pipes and fittings; remove h. p. rotor from casing, clean all blades, install, and reset to proper clearance, examine and repair throttles; remove lubricating oil pump to shop, repair and reinstall; overhaul boiler mountings, furnish air for ship's use, and steam for firing up boilers; *Westwego*, dock and undock; remove damaged shell plates and renew where necessary, fair and replace plates and frames in place, in accordance with surveyor's report; examine auxiliaries in wake of damages; *Steelore*, open up, examine, and take clearances of main turbine; reassemble; make repairs to ice machine, dynamo engine, air pump, fire pump, heater, galley range, boiler mountings, and scale and clean oil boilers; reroll leaky tubes, staybolts, and staytubes; calk leaky rivets and seams; remove and replace lagging, jackets, etc.; repair main and auxiliary steam and exhaust lines; furnish air for ship's use and steam for firing up boilers; *Radnor*, repair telemotor steering gear, sanitary pump, lubricating pump, condensate pump, guide shoe of main engine; manufacture boiler room tools, make running repairs to auxiliary steam and exhaust lines; *Sabine Sun*, general repairs to circulating pump; roll boiler tubes, renew one stay tube, calk seams, electric weld stay nuts, and perform minor repairs to auxiliary steam and exhaust lines; *Talaralite*, dock and undock; stage, clean and paint underwater body and top side; repair feed pump, cargo pump, sanitary pump, fuel oil pump, sea valves; clean boilers, calk leaky rivets, seams, staybolts, and roll tubes in boilers; renew hull zincs, calk leaky rivets in hull and perform miscellaneous service repairs in engineers', deck, and steward's departments; *Calonne*, repair refrigerating engine; secure thrust block; repair bilge pump, circulating pump, boiler mountings, and miscellaneous boiler room tools; repair boiler front and check up furnaces in main boilers; U. S. S. *Camden*, dock and undock and perform miscellaneous running repairs.

Dock—Tug *Cocoli*, dredge *Gamboa*, grader *No. 3*, and U. S. S. *Fulton*.

The following vessels were at the Cristobal shops for repairs during the week ended April 28:

Steamships *Gene al W. C. Gorgas*, rebore cylinder and valve chest of blower engine and true up piston rod; repair copper bilge suction pipe in after engine room, ammonia valve for refrigerating engine, starboard No. 2 lead bilge pipe, gauge pipe on donkey boiler, ventilator in after port engine room, ladder in No. 2 hold, and upper portion of ladder on foremast, etc.; barges *Nos. 49* and *97*, dock, clean, and paint; test all tanks and stop all leaks; renew fenders, etc.; steamship *Devon*, repair plunger for feed pump; braze copper pipe and electric weld two cracks in furnace of boiler; U. S. A. motor tug *First Lieut. Wilson B. Gaither*, rebuild pilot house, straighten forward end of deck house and awning stanchions and spreaders over pilot house; repair steering wheel stand, electric lights and conduit in pilot house, and running lights at forward end of pilot house; renew one cast iron bitt on main deck, starboard side due to damage by steamship *Westwego*.

Minor repairs—Steamships *Camden*, *Ucayali*, and U. S. submarine *O-7*.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

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Postal and Cable Addresses of The Panama Canal.

The postal address is "The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Mail for ships passing through the Canal or touching at either of the terminal stations should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending April 26, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cristobal	Panama Railroad Steamship Line		April 20		1,236
Ashbee	Grace Line		April 20		195
Saint Joseph	French Line	April 20	April 20	92	(2)
Ulua	United Fruit Co	April 20	April 20	(1)	101
Ecuador	Pacific Mail Steamship Co	April 20	April 21	348	(2)
Zenon	French Line	April 20	April 21	52	(2)
Student	Harrison Line	April 20	April 22	754	101
Lake Flattery	Panama Railroad Steamship Line	April 21	April 22	408	(2)
Teno	Chilean Line	April 21	April 21	(1)	363
Panama	Danish East Asiatic Line	April 22	April 23	180	(2)
P. de Latouche	French Line	April 22	April 26	186	295
Ansaldo San Giorgio I	Societa Nazionale di Navigazione	April 22	April 23	9	52
Mantaro	Peruvian Line	April 22	April 24	(1)	616
Abangarez	United Fruit Co	April 22	April 24	903	82
Cartago	United Fruit Co	April 22	April 22	265	19
Santa Marta	United Fruit Co	April 23	April 24	126	440
Toloa	United Fruit Co	April 23	April 24	160	14
Santa Ana	Grace Line	April 23	April 24	(1)	1
Carrillo	United Fruit Co	April 24	April 24	4	117
Camden	United Fruit Co	April 24	April 25	8,846	4,235
Gen. W. C. Gorgas	Panama Railroad Steamship Line	April 24		665	
Eemdijk	Holland-American Line	April 24	April 25	308	61
Delft	Royal Netherlands W. I. Mail	April 24	April 25	70	735
Aconcagua	Chilean Line	April 24	April 25	3	(2)
Almelo	Royal Netherlands W. I. Mail	April 24	April 25	64	1
San Blas	United Fruit Co	April 25	April 26	180	(2)
Parismina	United Fruit Co	April 26		401	
Ucayali	Peruvian Line	April 26		724	
Alvarado	Pacific Steam Navigation Co	April 26	April 26	462	(2)

[1] No cargo discharged. [2] No cargo laded.

Notaries Public in the Canal Zone.

The following is a list of the Notaries Public commissioned in the Canal Zone as of April 25, 1924. The list gives the name, where stationed, and the date of expiration of commission:

BALBOA.

Adams, R. H., Balboa shops, August 18, 1925.
Dryden, Geo. A., Balboa storehouse, October 10, 1926.
Kalar, J. D., Port Captain's office, April 13, 1926.
Lefever, John E., Port Captain's office, February 28, 1925.
Prager, Jerome F., Balboa storehouse, December 13, 1926.
Smith, Walter R., Balboa storehouse, September 4, 1925.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 343, October 28, 1924.
Boggs, W. B., Administration Building, room 262, August 4, 1925.
Fenton, J. A., Administration Building, room 201, November 15, 1926.
Illwitzer, P. G., Administration Building, room 270, October 12, 1926.
McNamara, J. W., Administration Building, room 301, October 3, 1925.
Murray, P. E., Administration Building, room 112, October 13, 1926.
Schaeffer, L. E., Administration Building, room 208, April 6, 1926.
Schecker, Cleveland A., Administration Building, room 244, January 19, 1927.
Walker, J. J., Administration Building, room 237, July 27, 1924.
Wang, Frank H., Administration Building, room 303, April 29, 1926.

ANCON.

Bowen, Vollie S., Land Office, February 27, 1927.
Boyd, Oscar S., Municipal Division, July 30, 1925.
McGuigan, J. J., District Attorney's office, August 31, 1926.
MacIntire, Leo A., Land Office, July 13, 1926.
Sheibley, F. H., District Court, October 27, 1926.

COROZAL.

Grimm, G. L., Corozal Hospital, June 28, 1926.
Johnson, Mrs. Anna O., Panama Ordnance Depot, February 26, 1927.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1926.

PEDRO MIGUEL.

Boyd, A. S., Municipal Division, March 29, 1927.
Cauthers, R. A., Municipal Division, October 19, 1926.
Norris, R. N., Municipal Division, June 30, 1924.

GATUN.

Daniels, W. L., Marine Division, March 19, 1927.
Ford, Stanley, R., Assistant District Quartermaster, August 19, 1926.

CRISTOBAL.

Atwood, H. E., Commissary Division, April 8, 1927.
Campbell, J. S., District Court, January 28, 1926.
Cotton, Charles, Coaling Plant, March 20, 1926.
Crawford, John J., Port Captain's Office, September 26, 1925.
Flood, Arthur, Customs Office, November 15, 1925.
Hughes, P. L., Coaling Plant, February 14, 1925.
Livengood, J. F., Commissary Division, May 17, 1925.
MacSparren, E. S., R. & F. Agency, December 1, 1924.
Mitchell, J. A., Customs Office, March 31, 1925.
Page, Courtenay K., American Foreign Banking Corporation, August 24, 1924.
Rabbitt, D. F., Commissary Division, October 11, 1926.
Scarborough, W. W., Clubhouse, January 21, 1927.
Thornton, H. O., Local Freight House, December 6, 1925.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations for the Operation and Navigation of the Canal—Sailing Directions—General Information," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Cable Rates.

All America Cables, Inc., announces the following rates per word from Panama to Peru:

Callao, Paita, Lima and Trujillo	$0.35
Mollendo, Arequipa, and other southern Peruvian stations	.55
All other places	.40

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Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: 9.10 a. m., 12.15 p. m., 4 p. m.

From Panama: 7 a. m., 12.15 p. m., 6.10 p. m.

The trains leaving at 12.15 p. m. do not run on Sundays and holidays; the others are daily.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, $0.50 per year; foreign, $1.00; address The Panama Canal Record, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., May 7, 1924. No. 39.

Traffic in April.

The number of commercial ships passing through the Panama Canal in April, 1924, was 403. In addition to commercial vessels there were 17 transits of small launches on which tolls were paid but which are not taken up in the commercial transits, and 86 transits of Government vessels, making the total transits of all kinds 506. The daily average number of transits of all kinds was 16.32.

During the 6 days from April 3 to April 8, inclusive, the Pacific Fleet of the United States Navy, returning from maneuvers off Culebra Island, was passed through the Canal. In addition to the 67 vessels in this fleet there were also 95 commercial transits, and one transit by a Navy collier not included in the fleet, making the total transits for 6 days, 163.

Total tolls collection on the 403 commercial vessels during the month was $1,903,761.27, and on the 17 launches, $80.95, making a total tolls collection on all traffic for the month, $1,903,842.22, or a daily average on all traffic of $63,461.41. In addition to the above, $13.75 was collected on a supplemental bill against a vessel that made the transit on March 31, 1924.

Detail of the months' traffic segregated by directions is as follows:

	Vessels.				Tolls.		
	Commercial.	Launches.	Government.	Total.	Commercial.	Launches.	Totals.
Atlantic to Pacific	202	12	79	293	$891,826.49	$50.35	$891,876.84
Pacific to Atlantic	201	5	7	213	1,011,934.78	30.60	1,011,965.38
Totals	403	17	86	506	1,903,761.27	80.95	1,903,842.22

In the following tabulation are given the number of commercial transits, tolls collections, monthly and daily averages, transits, and tolls collections, for the first 10 months of the current fiscal year:

Month.	Aggregate monthly.		Daily average.	
	No. of transits.	Tolls.	No. of transits.	Tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.12
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,355,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	[1]1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
Totals	4,436	20,562,377.41	.....	.....
Average per month	443.6	2,056,237.74	.....	.....
Average per day	.....	.....	14.53	67,417.63

[1] Total increased by $13.75, collected during April on a supplemental bill against the steamship *Port Wellington* which transited the Canal southbound on March 31, 1924.

The average amount of tolls paid by each commercial vessel transiting the Canal during April, 1924, was $4,723.97.

Tanker Traffic through The Panama Canal, April, 1924.

During the month of April, 1924, 118 tankships transited the Canal carrying an aggregate of 599,586 tons of cargo, a decrease of 14 transits and 217,802 tons of cargo as compared with March, 1924, and a decrease of 2 transits and 140,878 tons of cargo as compared with February, 1924.

As compared with August, 1923, the peak month in number of tanker transits, April, 1924, had 45 less transits, and as compared with September, 1923, the peak month in amount of cargo carried in tankers, April, 1924, had 423,734 tons less cargo. In terms of percentage this is a decrease of slightly over 26 per cent from the August, 1923, transits, and nearly 41½ per cent of the September, 1923, cargo.

Tanker transits in April, 1924, comprised about 29 per cent of the total transits, about 34½ per cent of the total tonnage, Panama Canal measurement, paid about 32½ per cent of the total tolls collected and carried about 28 per cent of the total cargo through the Canal during the month.

The following tabulations shows the number, aggregate net tonnage, Panama Canal measurement, tolls and cargo of tankships through the Canal during April, 1924, segregated by nationality of vessels and direction of transit together with the totals for the two preceding months:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	9	46,378	$37,392.74	19,169
Danzig	1	7,916	5,699.52	.....
Norwegian	1	5,520	3,974.40	.....
United States	55	332,896	244,977.99	12,078
Totals, April, 1924	66	392,710	292,044.65	31,247
Totals, March, 1924	63	382,076	278,288.99	27,281
Totals, February, 1924	56	343,180	256,114.73	27,261
Pacific to Atlantic.				
British	8	55,194	57,272.28	70,010
United States	44	260,641	266,751.35	498,329
Totals, April, 1924	52	315,835	324,023.63	568,339
Totals, March, 1924	69	427,365	442,500.33	790,057
Totals, February, 1924	64	390,335	396,733.64	713,203

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the figures for the two preceding months:

	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
April, 1924	56	338,481	$247,212.52	8,529
March, 1924	55	337,431	240,151.65	.....
February, 1924	49	302,035	220,615.57	8,128
From Los Angeles.				
April, 1924	42	254,414	261,941.35	475,272
March, 1924	62	385,190	397,957.31	720,716
February, 1924	59	362,904	371,423.51	678,854

Water Conservation During the Past Dry Season.

During the past dry season some effort was made to economize water in the operation of the locks, through such devices as the use of the shorter lock chambers for ships under 450-foot lengths, tandem lockages, and cross filling.

In a study published in 1910, Col. H. F. Hodges, in charge of lock designs, estimated that the expenditure of water for lockages could be reduced to 54.6 c. f. s. per vessel per diem without cross filling, and 46.4 c. f. s. with cross filling. While under ideal conditions these figures are theoretically possible, they could not be attained in practice without subjecting shipping to delay and inconvenience, and they were based on assumptions relative to the size of vessels which no longer hold good. The average tonnage of vessels using the Canal has increased from year to year, and this reduces the number of tandem lockages that can be made, and the occasions when it is practicable to use the shorter lock chambers.

The past season was unfavorable to the best operation of the locks, owing to the overhaul at Gatun in February and March, which left only one chamber available there, restricted the use of the intermediate valves, prevented cross filling, and hindered any great saving of water at that end of the Canal. Nevertheless by employing all feasible devices from about February 12, and with increasing care as the season advanced, the loss of water through lockages was reduced from 81.6 c. f. s. per vessel per diem in January, to 76.5 c. f. s. in February, and 60 c. f. s. in March. The latter figure is reasonably close to Colonel Hodges' theoretical minima. In July and August, 1923, wet-season months, when no effort was made to save water, the consumption for lockages exceeded 85 c. f. s.

A more important saving of water was effected by transferring approximately 90 per cent of the power load from the Gatun hydro-electric plant to the oil-burning steam generating plant at Miraflores, between January 2 and March 10, 1924.

The lowest level to which Gatun Lake fell during the season was 83.93, on April 20. On April 22, the lake having begun to rise again, mandatory cross filling and short lockages were discontinued.

Regulating Level of Gatun Lake.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,

BALBOA HEIGHTS, C. Z., April 28, 1924.

To all concerned—The following schedule for maintaining Gatun Lake during the 1924 rainy season will be adhered to as closely as conditions permit:

The lake will be allowed to fill to elevation plus 85.5 feet before any water is wasted over the spillway. This elevation should be reached not later than the middle of May.

The lake will be held between elevations plus 85.5 feet and plus 86 feet until the first of October; filled to elevation plus 86.5 feet in October; and the filling will be completed to elevation plus 87 feet in November or December.

The allowable variation in lake level will be 0.5 feet to lessen the number of spillway gates operated simultaneously in regulating the lake level.

M. L. WALKER,

Engineer of Maintenance.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 3, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Norburn	27	2.30	27	7.40	27	15.33	27	17.32	British	Coombes Marshal & Co	281.0	43.8	16.6	Antwerp	Vancouver	General	700	2,347	1,559
Lebore	27	7.46	27	8.48	27	16.34	27	17.32	American	Ore Steamship Co	550.0	72.0	24.0	New York	Cruz Grande	Ballast		14,325	4,635
Henry S. Grove	28	4.50	28	6.25	28	13.35	28	17.42	American	Argonaut Line	404.6	53.0	28.0	Baltimore	Seattle	General	8,219	6,756	4,688
K. R. Kingsbury [1]	28	6.20	28	7.05	28	14.42	28	15.44	American	Standard Oil Co	440.0	58.2	22.0	New York	San Pedro	Ballast		9,033	5,938
Gargoyle [1]	28	7.30	28	8.27	28	15.35	28	16.45	American	Vacuum Oil Co	425.0	57.3	20.6	Paulsboro	Richmond	Lubricating oil	3,549	7,510	4,989
Acme [1]	28	8.24	28	9.30	28	17.14	28	18.18	American	Standard Transportation Co	435.0	56.0	19.10	New York	San Pedro	Ballast		7,165	4,926
Cape May	28	10.40	28	11.00	28	18.28	28	19.46	American	U. S. & A. Line (S. B.)	415.0	53.7	26.6	New York	Brisbane	([6])	6,865	7,072	4,944
Sachsen	28	5.45	28	11.50	28	19.10	28	20.40	German	Hamburg-American Line	468.5	58.0	21.8	Antwerp	San Francisco	General	4,931	9,624	6,732
D. G. Schofield [1]	28	18.15	29	6.27	29	13.13	29	14.10	American	Standard Oil Co	439.5	58.0	20.0	New York	Los Angeles	Ballast		8,698	6,013
Turakina	28	19.50	29	7.00	29	14.16	29	22.58	British	New Zealand Shipping Co	460.0	62.0	27.9	Liverpool	Auckland	General	9,345	10,618	7,367
Hagood [1]	29	4.25	29	8.42	29	15.44	29	16.55	American	Cities Service Corporation	435.6	56.2	20.0	Boston	San Pedro	Ballast		7,426	5,094
Santa Paula	28	14.55	29	9.58	29	16.52	29	17.58	American	Pacific Mail Steamship Co	404.6	53.9	25.10	Norfolk	Los Angeles	General	8,527	6,756	4,775
Sailor [2]	28	.....	29	.....	29	10.35	29	17.58	American	J. A. Walker	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	2	2
William N. Page	29	11.58	30	6.20	30	13.44	30	17.38	American	Castner, Curran & Bullit	368.6	55.2	28.9	Norfolk	San Diego	Navy coal	7,334	5,711	3,615
Steel Exporter	29	14.42	30	7.00	30	15.00	30	15.52	American	Isthmian Lines	424.2	56.2	26.0	New Orleans	Shanghai	General	7,578	7,611	5,450
Julia Luckenbach	30	12.40	30	14.08	30	20.44	30	21.36	American	Luckenbach Line	436.0	57.0	27.6	Boston	Seattle	General	8,206	8,543	6,402
Florida	30	11.30	1	6.07	1	13.31	1	14.40	American	Monticello Steamship Co	298.0	45.0	14.10	Baltimore	San Francisco	Ballast		3,191	2,370
Almagro	30	6.30	1	6.07	1	14.14	1	17.52	British	Pacific Steam Navigation Co	303.4	43.0	17.3	New York	Callao	General	2,759	2,878	1,714
Beechpark	30	15.43	1	6.15	1	15.15	1	16.28	British	W. E. Hedger & Co	400.0	52.0	25.11	Galveston	Sydney	Sulphur	6,860	5,712	4,033
Carolinian	30	19.05	1	7.20	1	15.36	1	17.15	American	Garland Steamship Co	359.8	50.2	24.9	Sabine	San Pedro	Sulphur	6,000	4,642	3,510
Scottish Castle	30	20.10	1	7.00	1	16.07	1	17.15	British	Tankers, Ltd	440.0	57.8	19.2	Rotterdam	San Pedro	Ballast		7,532	5,162
Suwarinco	1	1.40	1	8.20	1	16.10	1	17.15	American	Transmarine Corporation	324.0	46.2	22.0	Newark	Los Angeles	General	4,500	3,984	2,612
Vellron [3]	29	5.15	1	9.10	1	16.52	2	6.34	American	N. J. Smith	87.2	18.1	5.4	Miami	San Pedro	Ballast		91	70
Ucayali	26	15.25	1	10.10	1	16.54	1	21.18	Peruvian	Peruvian Line	374.7	46.7	17.8	Cristobal	Callao	General	312	4,466	2,405
Agwimars [1]	1	3.15	1	10.33	1	17.45	1	18.40	American	International Shipping Co	429.0	59.0	18.0	Philadelphia	San Pedro	Ballast		7,596	5,209
Katrina Luckenbach	1	11.40	1	12.05	1	18.40	1	19.28	American	Luckenbach Line	446.0	56.0	30.0	New Orleans	Seattle	General	9,032	8,508	6,179
Californian [4]	1	13.50	1	14.00	1	20.19	1	21.20	American	American-Hawaiian Line	445.0	59.8	21.0	Philadelphia	San Pedro	General	6,657	8,567	6,020
R-23 [5]	.....	.....	1	7.00	1	14.14	5	20.41	American	U. S. Navy	175.0	16.7¾	.....	Cristobal	Balboa	Ballast		.....	.....
R-27 [5]	.....	.....	1	7.00	1	14.14	5	20.41	American	U. S. Navy	175.0	16.7¾	.....	Cristobal	Balboa	Ballast		.....	.....
Bethore [4]	1	16.15	2	7.00	2	14.36	2	15.35	American	Ore Steamship Co	550.3	72.3	23.4	New York	Cruz Grande	Ballast		15,476	4,354
Stanley	2	7.30	2	8.00	2	15.36	3	19.31	American	Barber Line (S. B.)	401.7	54.8	24.0	New York	Manila	Case oil, general	6,930	6,933	5,187
Mesopotamia	2	18.35	2	8.55	2	16.08	2	20.28	British	Commonwealth & Dom. Line	370.0	49.6	19.0	New York	Sydney	General	5,900	4,846	3,502
Steel Seafarer	2	9.05	2	9.15	2	17.12	2	21.02	American	Isthmian Lines	424.2	56.2	26.0	Boston	Seattle	([7])	8,623	7,611	5,454
Chilore	2	9.35	2	10.05	2	17.43	2	18.43	American	Ore Steamship Co	549.0	72.0	23.0	Baltimore	Cruz Grande	Ballast		14,538	9,348

[1] Tanker. [2] Launch. [3] Yacht. [4] Motor ship. [5] Submarine. [6] Case oil, automobile, and general. [7] Steel, tinplate, pipe, and general.

Morioka Maru	2	9.50	2	12.35	2	20.53	2	22.08	Japanese	Nippon Yusen Kaisha	360.0	51.0	23.0	New York	Yokohama	General	3,530	4,883	3,410
Point Lobos	2	12.50	2	13.00	2	20.53	3	2.03	American	Swayne & Hoyt	289.0	44.0	20.0	New Orleans	San Francisco	General	3,450	2,895	1,967
Chagres [8]	28	.....	2	.....	3	8.21	.....	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Towing barges	.....	2	2
A. B. C. No. 7 [9]	.....	.....	2	.....	3	8.21	.....	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	10	10
A. B. C. No. 8 [9]	.....	.....	2	.....	3	8.21	.....	.....	American	American Banana Corporation	.....	.....	.....	Cristobal	Gatun Lake	Unknown	.....	10	10
Capsa [1]	1	5.20	3	6.00	3	13.37	3	14.50	British	Anglo-Saxon Petroleum Co	400.0	52.4	13.8	Curacao	San Pedro	Ballast	.....	6,039	4,135
Port Victor	1	11.20	3	6.25	3	14.22	3	15.15	British	Commonwealth & Dom. Line	469.0	58.0	28.9	London	Auckland	General	8,160	9,336	6,683
Santa Tecla	2	18.18	3	7.20	3	15.10	3	17.30	American	N. O. & S. A. S. S. Co	298.6	40.0	16.0	New Orleans	Talcahuano	General	988	2,832	1,803
Trontolite [1]	2	17.20	3	7.42	3	15.14	3	16.20	British	Imperial Oil Co	420.8	57.0	19.0	Halifax	Talara	Ballast	.....	7,240	4,713
Hurunui	2	19.37	3	8.20	3	16.36	3	17.35	British	New Zealand Shipping Co	470.0	62 0	25.0	Glasgow	Adelaide	General	9,603	10,174	7,237
Cecil County [1]	3	4.55	3	8.40	3	16.40	3	17.35	American	Walker & Daly (S. B.)	431.0	59.0	19.0	New York	Los Angeles	Ballast	.....	8,097	5,330
Cape Cod [1]	3	4.58	3	9.35	3	17.18	3	19.12	American	Pure Oil Co	425.0	57.0	20.0	New York	San Pedro	Ballast	.....	7,219	5,181
Nardana	2	21.47	3	9.55	3	17.27	3	18.35	British	Federal Steam Navigation Co	419.5	58.5	26.0	Belfast	Auckland	General	3,490	8,213	5,434
M. S. Dollar	3	6.35	3	12.20	3	19.09	3	21.18	American	Dollar Line	475.5	61.0	20.0	Genoa	Manila	General	4,287	10,116	76,80
Peleus	3	13.05	3	13.15	3	20.30	4	8 07	British	Alfred Holt & Co	454.7	54.0	26.6	New York	Yokohama	General	5,500	.....	.....

[1] Tanker. [8] Launch. [9] Barge.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Tasmania	26	16.45	27	6.27	27	13.44	27	16.35	British	New Zealand Shipping Co	484.5	62.0	23.6	New Plymouth	Avonmouth	(10)	5,344	9,486	6,578
Kermit	26	20.40	27	7.23	27	14.45	27	14.45	American	United American Line	472.0	60.0	27.0	Portland	Hamburg	General	9,186	9,032	6,655
Canadian Constructor	27	3.00	27	8.16	27	15.55	28	0.20	British	Canadian Govt. Mer. Marine	445.0	56.0	18.6	Australian pts.	London	General	7,000	7,680	5,494
Paul Luckenbach	27	2.57	27	9.16	27	16.45	27	16.45	American	Luckenbach Line	471.1	59.2	27.4	Portland	Boston	General	8,600	9,027	6,539
Garfield	27	4.00	27	9.33	27	17.25	27	22.47	American	Grace Line	299.4	45.0	16.0	Pacasmayo	New York	General	756	3,256	2,010
Tilthorn	27	12.00	27	12.41	27	20.37	27	22.10	Norwegian	Wessel, Duval & Co	420.2	53.9	29.0	Antofagasta	Charleston	Nitrate of soda	10,292	6,591	4,730
Buenos Aires	27	0.30	27	13.54	27	22.10	29	12.20	Spanish	Compania Transatlantica	407.5	47.9	21.0	Valparaiso	Barcelona	General	14	5,624	3,844
Antietam [1]	27	15.40	28	6.12	28	13.50	28	13.50	American	Chas. Kurz & Co., Inc	435.6	55.2	29.0	Los Angeles	Baton Rouge	California crude	9,980	7,426	5,094
Saint Jean	28	6.45	28	7.51	28	15.40	29	9.25	French	Cie Gle Transatlantique	415.0	50.3	24 0	Talcahuano	Le Havre	General	5,547	5,819	4,081
Santa Cecilia	28	8.45	28	9.28	28	16.30	28	16.30	American	Planet Line	404.6	53.9	24 6	Seattle	New York	Lumber	5,000	6,745	4,562
Gen. W. M. Graham	.....	.....	28	9.36	28	16.35	.....	.....	American	U. S. Army	156 0	32.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Santa Luisa	28	9.45	28	10.52	28	17.55	28	21.10	American	Grace Line	360.2	51.6	24.6	Antofagasta	New York	General	4,281	5,694	3,975
Susan Maersk	28	15.30	29	6.19	29	13 05	29	14.48	Danish	The Isbrandtsen-Moller Co	299.8	42.4	17.0	Anacortes	Tampico	(11)	2,369	2,586	1,827
Vinita	28	21.00	29	6.39	29	14.12	29	14.12	American	United American Line	410.5	54.3	24.3	Portland	Baltimore	Lumber, general	6,279	6,572	4,910
Commercial Trader	28	5.40	29	7.29	29	16.00	29	16.00	American	Moore & McCormack, Inc	399.0	51.0	22.0	Everett	New York	Lumber	5,550	6,190	4,455
Saint Bede	28	22.00	29	7.52	29	15.20	29	15.20	British	Rankin, Gillmour & Co., Ltd	384 9	52.0	22.11	Victoria	New York	Lumber	5,214	5,212	3,598
Florence Luckenbach	28	22.30	29	8.13	29	16.30	29	16.30	American	Luckenbach Line	401 8	52.2	25 0	Tacoma	New York	Lumber	6,309	6,002	4,621
Wearbridge	29	2.15	29	8.56	29	17.47	29	19.15	British	Columbus Line, Inc	360.0	49.0	24.6	Antofagasta	Cafferet	Copper ore	6,536	4,403	3,025
Agwimex [1]	29	3.10	29	9.18	29	17.10	29	17.10	American	International Shipping Corp	480.5	66.0	28.4	San Pedro	Baltimore	Crude oil	13,000	9,394	6,306
Panaman	29	5.40	29	9.29	29	18.35	29	21.55	American	American-Hawaiian Line	407.7	53 7	24 10	Seattle	Boston	General, lumber	6,000	7,098	5,029
Munaires	29	11.00	29	11.44	29	19.00	29	19.00	American	Munson Line	370.0	53 1	25.0	Raymond	Philadelphia	Lumber	5,700	5,577	4,225
Clausens	29	12.17	29	13.17	29	20.30	29	20.30	American	Planet Steamship Corporation	409 8	54.0	23.6	Vancouver	New York	Lumber	7,000	6,581	4,795
Charles H. Cramp	29	13.32	29	14.42	29	21.27	29	21.25	American	Argonaut Steamship Lines	404.6	53.9	24.9	Vancouver	Baltimore	Lumber, general	4,435	6,755	4,759
Toco	29	18.00	30	6.15	30	13.25	30	18 25	British	Chile Steamship Co	459 0	56.0	14.0	Tocopilla	Tampico	Ballast	.....	7,693	4,831

[1] Tanker. [10] Refrigerated and general. [11] Box shooks and lumber.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Edgefield	29	15.54	30	7.18	30	16.10	30	16.10	American	Tampa Interocean Steamship Co	410.5	51.2	26.0	Hongkong	New York	General	8,563	7,476	5,900
Finland	30	2.00	30	8.00	30	15.35	30	21.48	American	Panama-Pacific Line	560.0	60.2	26.0	San Francisco	New York	General	3,170	13,559	9,016
Feltore	30	1.05	30	8.52	30	18.25	30	20.50	American	Ore Steamship Corporation	449.1	57.2	30.0	Cruz Grande	Baltimore	Iron ore	11,000	7,808	5,139
Jersey City	30	3.00	30	9.17	30	17.50	30	18.55	British	Sir W. R. Smith & Sons, Ltd.	411.8	55.0	27.0	Vancouver	United King.	(11)	9,000	6,466	4,520
Agwistone [1]	30	10.45	30	11.31	30	19.40	30	23.15	American	International Shipping Co	499.9	68.1	29.0	San Pedro	New York	Crude oil	15,465	10,853	7,804
Eupatoria	30	13.15	30	14.19	30	22.25	2	3.38	German	Hamburg-American Line	357.0	48.8	15.6	Salina	Hamburg	General	1,623	4,232	3,068
Sheaf Mount	30	14.15	30	15.16	30	23.55	1	1.40	British	Sheaf Steamship Co., Ltd.	420.0	54.0	24.3	Portland	Hampton R'ds	Wheat	8,150	6,555	5,012
Agwismith [1]	30	14.45	1	6.32	1	15.15	1	16.00	American	International Shipping Corp	499.9	68.1	28.6	Los Angeles	New York	Crude oil	14,500	10,853	7,736
Acajutla	30	16.50	1	7.18	1	15.45	4	13.50	British	Pacific Steam Navigation Co.	215.7	33.5	17.3	Champerico	Cristobal	(14)	996	1,273	706
Impco	30	16.30	1	7.25	1	15.45	1	15.45	Panaman	Colon Import & Export Co	84.0	20.0	8.0	Panama	Colon	Ballast		94	45
Nitokris	30	17.35	1	8.32	1	17.20	2	2.59	German	Kosmos Line	410.0	50.7	25.6	Corral	Hamburg	General	5,570	6,652	4,704
Nora [1]	1	2.55	1	9.19	1	17.53	1	17.53	American	Pan-American Petroleum Co	467.6	62.7	27.0	San Pedro	New Orleans	Gasoline	14,328	9,918	7,363
Halo [1]	1	8.00	1	9.42	1	18.45	1	18.45	American	Cities Service Transportation Co	435.0	56.0	27.8	San Pedro	Boston	Crude oil	10,357	7,434	5,053
Theodore Roosevelt	1	20.15	2	6.11	2	13.45	2	13.45	Norwegian	Norway-Pacific Line	424.5	55.2	29.0	Vancouver	Christiania	Wheat	9,350	7,593	5,637
Victolite [1]	1	20.24	2	6.54	2	15.05	2	15.05	British	Imperial Oil Co	500.0	68.0	30.0	Talara, Peru	Charleston	Crude oil	15,480	11,049	7,732
Calonne	11	23.30	2	7.19	2	17.10	2	20.15	French	(12)	385.0	51.2	24.0	Thio	Havre	General	3,500	5,878	4,335
Dochra	1	22.00	2	7.41	2	17.35	2	17.35	American	Barber Line	376.0	51.0	23.0	Manila	New York	General	6,014	5,158	3,813
Ortega	2	1.00	2	8.25	2	16.25	3	12.10	British	Pacific Steam Navigation Co	465.3	56.3	27.0	Talcahuano	Liverpool	General	5,745	8,345	4,998
Kina	1	23.00	2	8.42	2	18.30	2	23.55	Danish	Orient Steamship Co	373.9	51.9	25.0	Vancouver	Boston	Wool and pulp	5,862	6,080	4,618
Japan Arrow [1]	2	1.30	2	9.13	2	18.50	2	18.50	American	Standard Transportation Co	468.3	62.7	27.3	Los Angeles	New York	Crude oil	12,300	10,084	7,426
Jamaica	2	6.10	2	9.57	2	17.40			British	Pacific Steam Navigation Co	220.0	34.0	13.3	Tumaco	Cristobal	General	650	1,187	622
Swiftarrow [1]	2	6.10	2	10.16	2	19.52	3	2.25	American	C. D. Mallory & Co	464.6	60.2	25.0	San Pedro	Fall River	Crude oil	11,286	8,473	6,050
F. Q. Barstow [1]	2	3.50	2	10.44	2	20.50	2	20.50	American	Standard Oil Co	500.0	68.2	30.0	San Pedro	Montreal	Crude oil	14,648	10,530	7,604
Java	2	7.40	2	11.00	2	22.40	3	3.40	Danish	East Asiatic Co	432.9	58.6	32.0	Vancouver	Copenhagen	Wheat, general	12,500	9,363	6,927
Agwimoon [1]	2	8.30	2	12.06	2	21.58	2	21.58	American	International Shipping Corp	429.3	59.2	29.0	Los Angeles	New York	Crude oil	11,000	7,695	5,402
Eastern Sea	2	11.15	2	13.00	2	23.07	2	23.07	American	U. S. & A. Line	384.0	51.1	14.3	Adelaide	New York	Wool, general	1,020	5,934	4,415
Governor	2	11.55	2	14.34	3	0.35	3	2.47	British	T. & J. Harrison	410.3	52.2	26.0	Vancouver	Manchester	General	7,120	6,683	4,775
Steelore	2	15.45	2	17.15	3	15.45	3	17.00	American	Ore Steamship Corporation	550.3	72.2	32.6	Cruz Grande	New York	Iron ore	20,000	15,551	4,297
Borga	2	14.55	3	6.07	3	14.05	3	14.05	Norwegian	Norway-Pacific Line	362.4	51.4	23.7	San Francisco	Bergen	(15)	5,550	5,242	3,706
Vistula [1]	2	15.40	3	7.10	3	16.45	3	16.45	Danzig	Baltic-American Pet. & Import.	498.8	64.1	29.0	San Pedro	Montreal	Crude oil	13,746	10,604	8,167
Standard [1]	3	4.25	3	8.18	3	17.30	3	17.30	American	Standard Oil Co	523.8	68.6	30.0	San Pedro	New York	Crude oil	17,000	12,171	8,782
J. C. Donnell [1]	3	5.30	3	9.07	3	18.05	3	18.05	American	Atlantic Refining Co	500.0	68.2	28.6	Los Angeles	Philadelphia	Crude oil	15,000	10,435	7,304
Edward L. Doheny, Jr.	3	8.50	3	10.09	3	18.30	3	19.40	American	Pan-Amer. Pet. & Transp. Co	467.6	62.7	29.0	San Pedro	New York	(16)	13,326	9,363	6,874

[1] Tanker. [12] Compagnie Francaise de Marine et de Commerce. [13] Grain in bulk, wheat. [14] Coffee, sugar, hides, and general. [15] Barley, flour, and general. [16] Crude oil in bulk.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 564, column 2.)

Commercial Traffic Through the Panama Canal in April, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	85	395,588	492,358	632,779	395,192	$404,714.43	200,865
From United States to South America:							
British	4	17,987	20,298	28,934	18,031	16,922.94	4,900
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	1,657
Danish	1	2,256	3,468	3,718	2,307	2,496.96	.....
Norwegian	1	4,105	4,730	6,583	4,119	3,405.60	.....
Peruvian	1	1,483	1,529	2,155	1,169	1,834.80	2,373
United States	12	43,250	52,179	72,479	43,312	42,418.83	18,785
Totals	20	72,560	86,876	121,179	72,914	71,427.88	27,715
From Europe to South America:							
British	5	18,145	23,129	29,105	18,265	22,681.25	20,322
Dutch	2	7,852	12,459	12,688	7,706	9,815.00	10,407
French	2	7,964	8,533	11,699	7,432	9,783.10	3,103
German	3	9,634	14,189	16,075	9,624	12,042.50	15,515
Italian	2	6,700	8,283	11,623	6,951	8,375.00	2,192
Totals	14	50,295	66,593	81,190	49,978	62,696.85	51,539
From United States to Far East:							
British	6	23,899	32,312	38,155	23,969	29,873.75	42,168
Japanese	4	16,503	19,529	23,984	15,921	20,462.50	19,594
United States	6	26,420	37,534	43,223	26,495	33,025.00	38,742
Totals	16	66,822	89,375	105,362	66,385	83,361.25	100,504
From Europe to United States:							
British	4	15,678	18,280	26,213	15,725	13,161.60	.....
Danish	2	7,393	9,394	11,826	7,440	9,241.25	16,342
Dutch	1	4,863	6,066	7,655	4,799	6,078.75	9,338
German	2	7,884	11,620	13,058	7,843	9,855.00	12,973
Italian	1	3,347	4,069	5,488	3,276	4,183.75	1,421
Japanese	1	4,039	5,025	6,571	4,013	5,048.75	6,881
Norwegian	1	5,237	5,520	7,277	5,054	3,974.40	.....
United States	2	7,579	9,061	11,967	7,346	8,182.66	8,500
Totals	14	56,020	69,035	90,055	55,496	59,726.16	55,455
From United States to Australasia:							
British	9	36,133	50,957	55,683	35,023	44,907.75	49,167
United States	1	4,309	4,944	6,848	4,280	5,386.25	6,875
Totals	10	40,442	55,901	62,531	39,303	50,294.00	56,042
From Europe to Canada:							
British	4	11,556	15,837	18,645	11,503	14,445.00	9,800
French	2	7,706	9,349	10,135	6,188	9,446.75	9,792
Swedish	1	2,286	4,013	3,764	2,852	2,857.50	6,165
Totals	7	21,548	29,199	32,544	20,543	26,749.25	25,757
From Europe to Australia:							
British	7	36,215	45,885	57,304	36,140	45,268.75	46,380
From United States to Canada:							
British	1	3,445	4,154	5,443	3,423	2,990.88	.....
United States	4	16,658	22,200	27,244	16,664	20,822.50	25,779
Totals	5	20,103	26,354	32,687	20,087	23,813.38	25,779
From Cristobal to west coast of South America:							
British	2	677	694	1,249	702	825.15	326
Peruvian	1	1,204	2,386	4,403	2,090	1,505.00	412
Totals	3	1,881	3,080	5,652	2,792	2,330.15	738
From Cristobal to west coast of United States:							
Panaman	1	2,163	2,459	3,404	2,163	1,770.48	.....
United States	2	2,821	3,712	4,617	2,815	3,526.25	2,251
Totals	3	4,984	6,171	8,021	4,978	5,296.73	2,251

ATLANTIC TO PACIFIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Cristobal to Balboa:							
British	1	106	104	291	108	$79.50	
Panaman	1	47	45			35.25	
Totals	2	153	149	291	108	114.75	
From Mexico to west coast of South America:							
British	2	8,578	9,554	14,672	8,545	10,722.50	19,169
South American intercoastal:							
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	1,664
From Cristobal to west coast of Central America:							
British	2	1,286	1,441	2,298	1,304	1,607.50	1,820
Foreign vessels in ballast (U.S. coastwise):							
British	1	5,145	6,060	8,764	5,511	4,363.20	
From West Indies to Canada:							
United States	1	2,981	4,247	4,607	2,891	3,726.25	5,250
From Mexico to west coast of United States:							
United States	1	7,178	7,363	9,621	7,171	5,383.50	
From Europe to west coast of Central America:							
German	1	2,393	3,381	4,015	2,434	2,991.25	1,418
From east coast of Canada to Australia:							
British	1	3,273	4,354	5,439	3,331	4,091.25	3,237
From Canada to west coast of United States:							
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	
From West Indies to west coast of United States:							
United States	1	6,073	6,089	8,208	6,184	4,554.75	
From east coast of South America to Far East:							
Japanese	1	3,684	4,241	5,850	3,642	4,605.00	2,755
From east coast of South America to Canada:							
United States	1	3,522	4,914	5,652	3,522	4,402.50	6,697
From West Indies to Balboa:							
British	1	102	152	524	197	109.44	
Totals, April, 1924	202	819,360	1,036,598	1,317,594	818,921	891,826.49	635,029
Totals, April, 1923	204	828,410	1,022,618	1,306,995	823,665	884,124.27	653,369
Totals, April, 1922	121	409,406	520,688	650,055	410,266	505,219.46	552,433

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	83	358,450	455,967	578,194	360,578	$446,245.66	716,486
From South America to United States:							
British	9	40,061	46,923	64,018	40,012	49,814 65	78,270
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	4,778
Danish	1	2,378	3,092	3,851	2,353	2,972.50	5,850
Japanese	2	8,683	9,128	11,730	8,526	10,692.60	16,747
Norwegian	3	13,419	14,682	20,207	13,474	16,527 80	30,220
United States	13	45,361	51,927	76,174	45,684	56,495.70	124,465
Totals	29	113,414	130,457	183,290	114,025	140,893.25	260,330
From Canada to Europe:							
British	13	50,699	64,335	81,607	51,138	63,373.75	104,134
Dutch	1	4,860	6,060	7,651	4,796	6,075.00	9,971
French	2	10,299	11,968	16,535	9,759	12,873.75	16,269
Japanese	2	8,336	9,725	12,402	8,242	10,420.00	15,318
Norwegian	1	3,003	3,886	4,894	3,054	3,753.75	6,500
United States	2	7,623	12,105	12,334	7,570	9,528.75	17,597
Totals	21	84,820	108,079	135,423	84,559	106,025.00	169,819
From United States to Europe:							
British	5	23,306	29,157	37,299	23,431	29,132.50	44,876
Dutch	1	5,763	7,619	9,338	5,808	7,203.75	10,410
German	1	4,909	6,680	8,116	4,887	6,136 25	9,374

PACIFIC TO ATLANTIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From United States to Europe: —Continued.							
Japanese	3	13,180	13,653	17,545	12,779	$16,129.00	23,231
Swedish	1	2,303	3,969	3,802	2,839	2,878.75	4,907
United States	4	19,146	23,285	29,377	18,744	23,932.50	40,020
Totals	15	68,607	84,363	105,477	68,488	85,412.75	132,818
From South America to Europe:							
British	3	12,963	15,636	21,104	13,115	16,203.75	18,559
Dutch	1	2,746	4,393	4,368	2,726	3,432.50	3,194
French	1	3,566	4,081	5,681	3,600	4,457.50	5,925
German	4	14,701	19,626	23,867	14,739	18,376.25	31,357
Italian	1	3,097	3,599	5,376	3,082	3,871.25	6,200
Spanish	1	3,017	3,844	5,205	3,326	3,771.25	265
Totals	11	40,090	51,179	65,601	40,588	50,112.50	65,500
From Australasia to Europe:							
British	9	48,854	60,653	76,735	49,450	61,067.50	47,349
From Canada to United States:							
British	3	10,506	12,343	16,823	10,493	13,132.50	21,319
United States	4	14,384	18,147	23,643	14,297	17,980.00	24,647
Totals	7	24,890	30,490	40,466	24,790	31,112.50	45,966
From Far East to United States:							
Japanese	1	4,393	5,749	7,006	4,321	5,491.25	4,775
United States	6	29,441	34,766	41,228	27,462	36,801.25	52,934
Totals	7	33,834	40,515	48,234	31,783	42,292.50	57,709
From South America to Cristobal:							
British	2	677	694	1,249	702	825.15	626
Colombian	1	67	77	153	85	55.44	.....
Peruvian	2	2,193	4,791	7,708	3,604	2,741.25	2,022
Totals	5	2,937	5,562	9,110	4,391	3,621.84	2,648
From Central America to Cristobal:							
British	1	648	735	1,128	650	810.00	1,025
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,743
United States	1	1,654	2,163	2,643	1,654	2,067.50	2,209
Totals	3	4,465	5,357	7,175	4,467	5,581.25	4,977
From South America to Mexico:							
British	2	8,578	9,554	14,672	8,545	6,878.88	.....
From Australasia to United States:							
British	1	4,188	6,216	6,804	4,276	5,235.00	4,000
United States	1	4,414	4,442	5,870	4,414	5,330.40	1,010
Totals	2	8,602	10,658	12,674	8,690	10,565.40	5,010
From United States to Cristobal:							
British	1	8,165	9,342	12,915	8,150	10,206.25	6,463
United States	1	1,167	1,549	1,974	1,161	1,458.75	1,790
Totals	2	9,332	10,891	14,889	9,311	11,665.00	8,253
From Canada to Cristobal:							
British	1	106	104	291	108	79.50	.....
From United States to South America:							
United States	1	3,524	4,890	5,643	3,523	4,405.00	1,543
South American intercoastal:							
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	1,232
From United States to Mexico:							
Danish	1	1,399	1,827	2,355	1,411	1,748.75	2,429
From Mexico to Europe:							
German	1	1,867	3,068	3,172	1,854	2,333.75	1,623
Totals, April, 1924	201	815,284	1,016,573	1,308,018	818,988	1,011,934.78	1,523,692
Totals, April, 1923	200	806,047	985,072	1,272,556	803,668	994,813.88	1,533,776
Totals, April, 1922	109	362,526	454,145	569,283	362,562	447,936.65	483,614

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended May 5:

U. S. A. steamer *Nones*, overhaul main engine and steam ram of reversing engine; remetal main thrust horse shoe bearings; bore out and fit new propeller to shaft; rewood tail shaft bearing; repair hand pump, air pump, steering wheel, steering gear wires, sheathing, doors, covering boards, windows, seats, and miscellaneous piping; overhaul circulating pump engine, steam steering engine, and windows in lower house; manufacture awnings for upper, after, and forward deck; install three new floor plates in fire room; calk and pitch main deck; dock, clean, and paint bottom, etc.; steamships *Panama*, renew water service pipe for refrigerating machine; remove ceiling in No. 2 and No. 3 holds, scale, and clean tank tops, repair loose or leaky rivets, paint tank tops and install new ceiling; manufacture handle for shaper; repair fire tools and plumbing; scale bulwarks, etc., as directed by chief officer, etc.; *Acajutla*, manufacture copper pipe for main thrust, two studs for circulating pump, oil pipe for main engine, and pawl for windlass; machine valve seats of main engine bilge pumps and make new valves; retin five stew pans; repair dead light, two hatch locking bars, and hand rail for ladder to boat deck, etc.; *Mauna Loa*, cast and machine new l. p. slide valve; manufacture 4 l. p. piston rings; repair tube expander; renew pipe work as directed by chief engineer; refasten boiler fronts.

Minor repairs—Steamships *Van Renselaer*, *Almagro*, *Agwistone*, *Eupatoria*, *Nitokris*, *Acajutla*, *Jamaica*, *Trecarrell*, yacht *Vallron*, yacht *Silver Star*, launch *Gargoyle*, and U. S. A. D. B. boat *L–53*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 3, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Toloa	United Fruit Co.	April 27	April 27	40	137
Garfield	Grace Line	April 27	April 27	296	(2)
Parismina	United Fruit Co.		April 27		152½
Buenos Aires	Spanish Line	April 27	April 29	87	1,013
Bachsen	United American Line	April 28	April 28	2	(2)
Santa Luisa	Grace Line	April 28	April 28	(1)	3
Santa Paula	Pacific Mail Steamship Line	April 28	April 29	160	245
Saint Jean	French Line	April 28	April 29	229	26
Gen. W. C. Gorgas	Panama Railroad Steamship Line		April 29		1,522
Calamares	United Fruit Co.	April 29	April 30	205	161
Van Renselaer	Royal Netherlands W. I. Mail	April 29	April 30	645	13
Atenas	United Fruit Co.	April 29	May 1	351	348
Almagro	Pacific Steam Navigation Co.	April 30	May 1	52	351
Metapan	United Fruit Co.	April 30	May 1	380	519
Parismina	United Fruit Co.	April 30	April 30	100	30
Eupatoria	Hamburg-American Line	April 30	May 1	422	543
Ucayali	Peruvian Line		May 1		238
Santa Marta	United Fruit Co.	April 30	May 1	(1)	99
Capsa	Anglo-American Petroleum Co.	May 1	May 3	7,804	(2)
Acajutla	Pacific Steam Navigation Co.	May 1		996	
Santa Teela	New Orleans & S. A. S. S. Line	May 2	May 3	171	43
Java	Danish East Asiatic Line	May 2	May 3	(1)	99
Van Renselaer	Royal Netherlands W. I. Mail	May 2	May 3	½	651
Jamaica	Pacific Steam Navigation Co.	May 2		650	
Ortega	Pacific Steam Navigation Co.	May 2	May 3	(1)	64
Camito	Elders & Fyffes Ltd.	May 3	May 3	9	(2)
Naimes	Roland Line	May 3		575	
Panama	Panama Railroad Steamship Line	May 3		2,545	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 3, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Laura C. Hall	Anglo-American Steamship Co.	April 30	May 1	6	
Rakuyo Maru	Toyo Kisen Kaisha	April 30	May 1		9
Almagro	Pacific Steam Navigation Co.	May 1	May 1		3
Jamaica	Pacific Steam Navigation Co.	May 2	May 2	1	
Santa Teela	Grace Line	May 3	May 3		18
Venezuela	Pacific Mail Steamship Co.	May 3	May 4	80	

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 1, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	21
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.46
Oil, engine, gas, extra heavy, in cases	Gal.	.66
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in nearly 10 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.85 to $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of this tariff, and for handling lines in accordance with Item 4, of this tariff.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal. Washington, D. C.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 558.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 27	Toloa	United Fruit Co.	Port Limon.	April 27	Parismina	United Fruit Co.	Bocas del Toro.
April 29	Calamares	United Fruit Co.	New York via Habana.	April 28	Toloa	United Fruit Co.	New York via Habana.
April 29	Van Renselaer	Royal Netherlands W. I. Mail Co.	Amsterdam via West Indies.	April 29	Gen. W. C. Gorgas	Panama Railroad Steamship Line.	New York via Haiti.
April 29	Atenas	United Fruit Co.	New Orleans via Habana.	April 30	Parismina	United Fruit Co.	New Orleans via Habana.
April 30	Parismina	United Fruit Co.	Bocas del Toro.	April 30	Calamares	United Fruit Co.	Port Limon.
April 30	Metapan	United Fruit Co.	New York via Kingston.	April 30	Van Renselaer	Royal Netherlands W. I. Mail Co.	Port Limon.
April 30	Santa Marta	United Fruit Co.	Colombian ports.	May 1	Metapan	United Fruit Co.	Colombian ports.
May 2	Van Renselaer	Royal Netherlands W. I. Mail Co.	Port Limon.	May 1	Santa Marta	United Fruit Co.	New York via Kingston.
May 3	Panama	Panama Railroad Steamship Line.	New York via Haiti.	May 1	Atenas	United Fruit Co.	New Orleans via wayports.
May 3	Camito	Elders & Fyffes Line.	Port Limon.	May 3	Camito	Elders & Fyffes, Ltd.	Bristol.
				May 3	Van Renselaer	Royal Netherlands W. I. Mail Co.	Amsterdam via wayports.

PORT OF BALBOA.

April 29	Talaralite	Imperial Oil Co, Ltd.	Talara.	April 29	Talaralite	Imperial Oil Co., Ltd.	Talara.
April 30	Rakuyo Maru	Toyo Kisen Kaisha	Valparaiso.	May 1	Rakuyo Maru	Toyo Kisen Kaisha	Hongkong.

* Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., May 14, 1924. No. 40.

New Records for Traffic in One Direction on One Day.

New high records were made for traffic in one direction on one day on May 2, 1924, when 15 vessels made the transit from the Pacific to the Atlantic. The number of transits was the same as in the traffic from the Atlantic to the Pacific on May 25, 1923, but the northbound traffic on May 2, 1924, exceeds former records in other respects. In the following table is shown detail of the former high records and the figures for May 2, 1924:

Date and direction.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
May 25, 1923, Atlantic to Pacific	15	77,628	$68,814.17	63,895
January 14, 1924, Pacific to Atlantic	12	73,630	77,081.25	133,757
May 2, 1924, Pacific to Atlantic	15	78,651	80,364.95	133,776

On May 2, 1924, the traffic from the Atlantic to the Pacific was comparatively light, there being but 7 vessels making the transit in that direction, and the previous records for total traffic in one day were not exceeded. The following table shows the high records in comparison with May 2, 1924:

Date.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
May 25, 1923	25	145,382	$136,604.77	153,075
January 14, 1924	25	133,621	127,697.63	163,202
May 2, 1924	22	111,873	109,306.01	162,609

The tabulation below gives details of the traffic from Pacific to Atlantic on May 2, 1924:

Vessel.	Nationality.	Tonnage.		Tolls.	Cargo.
		Panama Canal net.	Registered net.		
Theodore Roosevelt	Norwegian	5,637	4,493	$5,636.25	9,350
Victolite [1]	British	7,732	7,443	9,278.40	15,481
Calonne	French	4,335	4,344	5,202.00	3,500
Dochra	American	3,813	2,755	3,443.75	6,014
Ortega	British	4,998	4,510	5,587.50	5,745
Kina	Danish	4,618	3,006	3,731.25	5,862
Japan Arrow [1]	American	7,426	5,177	6,451.25	12,300
Jamaica	British	622	602	746.40	650
Swiftarrow [1]	American	6,050	5,092	6,425.00	11,286
F. Q. Barstow [1]	American	7,604	5,616	7,028.75	11,648
Agwimoon [1]	American	5,402	4,207	5,232.50	11,000
Eastern Sea	American	4,415	4,493	5,298.00	1,020
Governor	British	4,775	3,495	4,325.00	7,420
Steelore	American	4,297	4,172	4,156.40	20,000
Java	Danish	6,927	5,525	6,822.50	12,500
Totals		78,651	64,930	80,364.95	133,776

[1] Tanker.

Heavy Traffic through Canal First Five Days of May.

During the first 5 days of May, 1924, 44 commercial vessels transited the Canal from Pacific to Atlantic, and 41 from Atlantic to Pacific, a total of 85 vessels. In addition to the commercial vessels there were 16 transits of government vessels and 4 launches through the Canal, making a total of traffic for the 5 days of 101 seagoing vessels and 4 launches.

For the week ending May 7, 1924, the total transits in both directions were 116, which does not equal the high record of the week December 2 to 8, 1923, with 124 transits of all kinds but is considerably above the average.

Detail of the commercial traffic by directions for the first 5 days of May is as follows:

Direction.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	41	183,418	$162,131.13	122,028
Pacific to Atlantic	44	219,138	223,166.85	374,561
Totals	85	402,556	385,297.98	496,589

The daily averages for the 5-day period were; transits, 17; Panama Canal net tonnage, 80,511; tolls, $77,059.60; tons of cargo carried, 99,318.

Coaling Plant Records.

The steamship *Ionic*, bound from Auckland to London, entered the Canal at 6.21 a. m. on May 9, completed the transit at 1.05 p. m., tied up at the Cristobal coaling plant and began bunkering at 1.20 p. m., took 881 tons and 2,160 pounds of coal in one hour, and cleared for sea again at 2.45 p. m. on the same day.

The Panama Canal collier *Ulysses*, carrying 12,033 tons of coal, with the barge *Darien* in tow, carrying 7,256 tons additional, arrived at Cristobal on May 9, having completed the voyage from Norfolk in the record time of 6 days and 20 hours.

Canadian Intercoastal Trade.

There is to be a systematic development this summer of the Canadian intercoastal trade. It has been announced that 11 British ships will be employed in regular service between Montreal and Vancouver via Panama, calling at New York and other intermediate ports. The Canadian Government Merchant Marine will have 4 ships, the Huston Company 4, and Thomas Harling & Son, 3.

Prior to this season, eastern Canadian products arriving at Vancouver by sea, were subject to import duty unless they had been shipped from a Canadian port. This made it impossible to route goods for British Columbia via New York, the natural outlet for a large part of industrial Canada, especially during the winter months when the St. Lawrence is closed to navigation. This technical difficulty has now been overcome by the establishment of a Canadian customs office in New York charged with the inspection of Canadian products in transit, and all of the new intercoastal lines expect to benefit by the change.

The steamship *Canadian Importer*, the first steamer in the Canadian Government Merchant Marine intercoastal service, passed through the Panama Canal on May 7, bound from Vancouver to Montreal. The steamship *Canadian Planter* of the same line was scheduled to leave Montreal for the Pacific coast on May 6. This line will maintain a monthly service.

Twentieth Anniversary of The Panama Canal.

May 4, 1924, was the twentieth anniversary of the occupation of the Canal Zone by the United States, which took place on May 4, 1904.

The Canal was opened to commercial traffic on August 15, 1914. From that date until May 4, 1924, it was transited by 24,295 commercial ocean-going vessels.

Since the opening of the Canal, considerable amount of dredging has been necessary in order to remove slides in the Gaillard Cut and silting in other sections, principally the sea-level channels. To May 3, 1924, inclusive, the total amount of excavation by the American forces from the Canal prism and harbors had amounted to 321,448,750 cubic yards, which is in addition to 29,908,000 cubic yards excavated by the French and found useful to the present Canal.

AMERICAN OCCUPATION.

	Cubic yards.
Excavation May 4, 1904, to June 30, 1923, inclusive	316,927,050
Excavation July 1, 1923, to April 30, 1924, inclusive	4,477,900
Excavation May 1, 1924, to May 3, 1924, inclusive	43,800
Total excavation from May 4, 1904, to May 3, 1924, inclusive	321,448,750
Total useful French excavation	29,908,000
Grand total	351,356,750

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended May 12:

Steamship: *Ulysses*, true up grooves in i. p. bull rings and manufacture and fit new rings; repair sounding pipe for No. 6 bilge, 8 burner sleeves, sea suction of hand pump in forepeak, and pie casing on port side; manufacture angle plate for lathe, 12 scrapers, 12 burner cone rods, bronze hose coupling for hand fire pump, and flanges for steam lines, for testing of boilers; furnish laborers to clean fireroom and to assist chief officer to reverse spare hawser, etc.; yacht *San Blas*, overhaul engine; change exhaust from overhead to under water; furnish and install bilge pump; rebush stern bearing; straighten propeller; overhaul plumbing and underwater connections; manufacture new blade for rudder and install rudder; dock and repair hull and sheathing where damaged; repair wood flooring and interior woodwork where damaged; install new awning spreaders, etc.; barge *Darien*, manufacture new crosshead for fire pump and new plunger for galley hand pump; repair leak in No. 2 port top side tank; remove wood protection over suction line No. 2 hold, etc.; steamship *La Isla*, repair leaks in boiler; manufacture socket wrench as directed and two oil boxes for main engine bearings and fit latter in bearings, etc.

Minor repairs—Steamships *Jamaica*, *Camden*, and *Baldhill*, U. S. S. *Rochester*, U. S. A. T. *St. Mihiel*, tug *Favorite*, launches *Hibiscus* and *Gargoyle*, and yacht *Silver Star*.

Notice to Mariners.—Menace to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 8, 1924.

The submarine *O–6* recently struck a rock at latitude 8° 14′ 35″ N., longitude 78° 52′ 30″ W., the entrance to St. Elmo Bay, Gulf of Panama.

Also, a seaplane reports seeing a submerged pinnacle rock, depth of water unknown at approximately latitude 8° 36′ N., longitude 79° 11′ W., This point is in open water, westerly of Pacheca and Saboga Islands.

JAY J. MORROW,
Governor.

Origin and Destination of Cargo Passing through the Panama Canal from the Atlantic to the Pacific, April, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.[2]	West coast of Mexico.	West coast of North America.[1]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
N. Atlantic ports.	2,946	876	1,191	4,579	11,626	21,218	185,471	1,231	1,335	.....	.....	2,414	190,451	11,585	24,849	1,755	15,285	53,474	4,435	22,202	27,175	53,812	2,806	321,761	50.7
S. Atlantic ports.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,766	500	.....	.....	5,266	.....	.....	.....	.....	.....	5,266	0.8
Gulf ports	3,670	.....	.....	.....	1,916	5,586	35,850	.....	.....	.....	.....	.....	35,850	15,222	6,589	.....	12,117	33,928	.....	6,438	4,106	10,544	.....	85,908	13.5
Totals, U. S.	6,616	876	1,191	4,579	13,542	26,804	221,321	1,231	1,335	.....	.....	2,414	226,301	31,573	31,938	1,755	27,402	92,668	4,435	28,640	31,281	64,356	2,806	412,935	65.0
E. coast of Mexico.	19,169	.....	.....	.....	.....	19,169	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19,169	3.0
Cristobal, C. Z.[2]	18	326	.....	1,338	1,759	3,441	429	.....	4,071	.....	.....	.....	4,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,941	1.3
E. coast of Canada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,355	1,355	.....	1,355	0.2
West Indies	.....	.....	.....	.....	97	97	.....	5,250	.....	.....	.....	.....	5,250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,347	0.8
Totals, N. America	25,803	1,202	1,191	5,917	15,398	49,511	221,750	6,481	5,406	.....	.....	2,414	236,051	31,573	31,938	1,755	27,402	92,668	4,435	28,640	32,636	65,711	2,806	446,747	70.3
Europe:																									
British Isles	9,698	.....	.....	.....	6,832	16,530	22,108	5,502	.....	80	.....	503	28,193	.....	.....	.....	.....	.....	25,785	.....	13,695	39,480	.....	84,203	13.3
France	402	.....	.....	.....	2,762	3,164	7,315	20	.....	.....	.....	.....	7,335	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,499	1.6
Germany	2,025	65	100	164	4,995	7,349	2,491	.....	1,418	.....	.....	.....	3,909	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,258	1.8
Holland	1,350	.....	10	35	.....	1,395	7,087	.....	.....	.....	.....	.....	7,087	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,482	1.3
Belgium	2,815	.....	599	224	.....	3,638	26,364	700	.....	.....	.....	1,000	28,064	.....	.....	.....	.....	.....	6,900	.....	.....	6,900	.....	38,602	6.2
Norway and Sweden	.....	.....	.....	.....	.....	.....	1,025	.....	.....	718	.....	.....	1,743	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,422	6,165	0.9
Italy	1,409	.....	.....	60	1,614	3,083	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,083	0.5
Europe [1]	.....	.....	815	700	15,928	17,443	370	.....	.....	.....	.....	.....	370	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,813	2.8
Totals, Europe	17,699	65	1,524	1,183	32,131	52,602	66,760	6,222	1,418	798	.....	1,503	76,701	.....	.....	.....	.....	.....	32,685	.....	13,695	46,380	4,422	180,105	28.4
E. coast S. America	.....	.....	.....	133	.....	133	7,139	272	.....	.....	.....	.....	7,411	633	.....	.....	.....	633	.....	.....	.....	.....	.....	8,177	1.3
Grand totals	43,502	1,267	2,715	7,233	47,529	102,246	295,649	12,975	6,824	798	.....	3,917	320,163	32,206	31,938	1,755	27,402	93,301	37,120	28,640	46,331	112,091	7,228	635,029	100.0
Per cent of total cargo:																									
April, 1924	6.9	0.2	0.4	1.1	7.5	16.1	46.7	2.0	1.0	0.1	....	0.6	50.4	5.1	5.0	0.3	4.3	14.7	5.8	4.5	7.4	17.7	1.1	100.0	.....
April, 1923	7.1	0.2	0.5	1.6	5.7	15.1	43.3	1.5	0.7	1.6	0.1	2.4	49.6	9.1	5.4	0.1	6.0	20.6	4.7	3.1	6.4	14.2	0.4	100.0	.....
April, 1922	10.0	0.5	0.1	1.9	5.0	17.5	32.9	1.8	0.4	1.9	....	.....	37.0	16.2	10.7	.....	5.6	32.5	4.7	0.7	5.0	10.4	2.6	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing through the Panama Canal from the Pacific to the Atlantic, April, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	France.	Germany.	Holland.	Denmark.	Spain and Portugal.	Europe.[1]	Italy.	Norway and Sweden.	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	172,151	25,001	11,356	208,508		147	96	1	208,752	14,582	13,036	6,678	4,542	102		112	20,067	2,307		61,426		270,178	17.7
Colombia	745			745				264	1,009													1,009	0.1
Ecuador	965			965				333	1,298			355	305				304	60		1,024		2,322	0.2
Peru	19,634	24,400		44,034				1,609	45,643	818			419			7	422	45		1,711	1,260	48,614	3.2
W. coast of S. America	3,523			3,523				4,137	7,660	35			391				244			673		8,333	0.4
Totals, South America	197,018	49,401	11,356	257,775		147	96	6,341	264,362	15,435	13,036	7,033	5,669	102		119	21,037	2,412		64,831	1,260	330,456	21.7
North America:																							
West coast, United States	693,639		28,860	722,499		650	2,693	8,439	734,281	106,556		3,118	1,223	4,563	2,500		37,114		2,407	157,484	1,543	893,308	58.7
West coast of Canada	37,877			37,877				10	37,887	53,821	19,356	10,909					33,170	10,986	6,500	134,742		172,629	11.3
West coast, Central Am	1,631			1,631				5,959	7,590			1,719	86	67						1,872		9,462	0.6
West coast of Mexico													1,623							1,623		1,623	0.1
West coast of North Am[1]										8,114							449			8,563		8,563	0.6
Totals, North America	733,147		28,860	762,007		650	2,693	14,408	779,758	168,491	19,356	15,746	2,935	4,630	2,500		70,733	10,986	8,907	304,284	1,543	1,085,585	71.3
Asia:																							
Philippines	27,357		1,881	29,238					29,238													29,238	1.9
Japan	1,353			1,353					1,353													1,353	0.1
China	8,752			8,752		125			8,877													8,877	0.6
Far East[1]	820			820		15,004			15,824													15,824	1.0
Totals, Asia	38,282		1,881	40,163		15,129			55,292													55,292	3.6
Australasia:																							
Australia	5,010			5,010					5,010	7,000										7,000		12,010	0.8
New Zealand	1,120			1,120					1,120	31,145										31,145		32,265	2.1
Australasia[1]	200			200					200	3,384				4,500						7,884		8,084	0.5
Totals, Australasia	6,330			6,330					6,330	41,529				4,500						46,029		52,359	3.4
Grand totals	974,777	49,401	42,097	1,066,275		15,926	2,789	20,752	1,105,742	225,455	32,392	22,779	8,595	9,232	2,500	119	91,770	13,398	8,907	415,147	2,803	1,523,692	100.0
Per cent of total cargo:																							
April, 1924	63.9	3.2	2.8	69.9		1.0	0.2	1.5	72.6	14.7	2.1	1.5	0.6	0.6	0.2		6.0	0.9	0.6	27.2	0.2	100.0	
April, 1923	61.93	8.18	6.32	76.43	1.89	0.83	4.12	1.16	84.43	6.55	0.30	0.54	1.03	0.39		0.20	5.25		0.53	14.78	0.32	100.0	
April, 1922	39.7	11.7	1.0	52.4		1.0	0.3	3.8	57.6	28.1	1.5	0.5	2.4	0.9			6.8		0.5	41.0	0.5	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 10, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Naimes	3	5.16	4	6.00	4	13.58	4	15.06	German	Roland Line	313.0	46.0	16.3	Hamburg	Puntarenas	General	1,265	3,529	2,532
Teesbridge	3	14.20	4	6.00	4	14.40	4	15.53	British	Crosby McGee & Co	340.6	47.2	24 0	Baltimore	San Antonio	Coke, general	4,114	4,338	3,184
Byron D. Benson [1]	3	16.30	4	7.00	4	15.14	4	16.24	American	Tidewater Oil Co	465.4	60.2	19.0	New York	San Pedro	Ballast		8,546	6,095
James McGee [1]	3	16.35	4	7.20	4	15.50	4	16.50	American	Standard Oil Co	499.1	68.0	17.8	New York	San Pedro	Ballast		10,964	7,909
Cerro Azul [1]	4	6.08	4	8.35	4	16.36	4	17.25	American	Tidewater Oil Co	480.0	65.9	21.0	New York	San Pedro	Ballast		9,398	6,453
Francis E. Powell [1]	4	7.22	4	9.52	4	17.04	4	18.10	American	Atlantic Refining Co	431 0	59.2	20.0	Philadelphia	San Pedro	Ballast		7,860	5,101
William A. McKenney	4	10.25	4	10.40	4	17.25	4	18.10	American	Munson Line	395.6	55.0	19.0	Baltimore	Seattle	General	2,820	6,993	4,990
Acajutla	1	15.45	4	13.50	4	20.29	4	23.50	British	Pacific Steam Navigation Co	215.0	33.5	16.11	Cristobal	Champerico	General	1,161	1,273	706
Madamoiselle [2]			4		4				American	Sergeant A. Norich				Cristobal	Balboa	Ballast		1	1
O-8 [3]			4	6.40	4	13.50			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-10 [3]			4	6.40	4	13.50			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-1 [3]			4	6.40	4	13.50			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-6 [3]			4	6.40	4	13.50			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
Ansaldo San Giorgio II	4	14.38	5	6.00	5	13.24	5	18.05	Italian	Transatlantica Italiana	377.5	51 7	14.8	Genoa	Valparaiso	General	984	5,591	3,975
Mount Clinton	5	5.50	5	7.35	5	14.52	5	17.52	American	United American Lines	440.3	57.2	21.0	New York	San Pedro	General	5,628	8,141	5,398
Orleans	5	10.30	5	10.45	5	17.57	6	7.31	American	Oriental Navigation Co	395.0	55.0	27.0	Norfolk	Pearl Harbor	Coal	9,137	7,330	5,233
Corvus	5	11.10	5	11.15	5	19.02	5	23.14	American	Planet Line	410.0	54.2	23.0	New York	Vancouver	Steel, general	6,494	6,604	4,655
Ebro	4	20.00	5	11.30	5	19.02	5	20.30	British	Pacific Steam Navigation Co	450.0	57.0	26.3	New York	Valparaiso	General	2,537	9,151	6,227
O-3 [3]			5	6.30	5	14.08			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-7 [3]			5	6.30	5	14.08			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-9 [3]			5	6.30	5	14.08			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
R-26 [3]			5	6.30	5	14.08			American	U. S. Navy	175.0	16.7¾		Cristobal	Balboa	Ballast			
Seiota [4]			5	6.40	5	14.13			American	U. S. Navy	149.0	30.3		Cristobal	Balboa	Ballast			
Quail [5]			5	6.40	5	14.13			American	U. S. Navy	180.0	35.6		Cristobal	Balboa	Ballast			
No. 285 [6]			5	6.40	5	14.13			American	U. S. Navy	105.0	14.8¾		Cristobal	Balboa	Ballast			
Santa Olivia	5	0.55	6	6.15	6	13.26	6	14.38	American	Pacific Mail Steamship Co	404.6	53.9	24.5	Baltimore	San Francisco	General	5,461	6,779	4,921
Elcano [1]	5	13.00	6	6.55	6	14.00	6	15.10	Spanish	Anglo-Saxon Petroleum Co	400.0	52.3	19.0	Barcelona	San Francisco	Ballast		6,086	4,470
Trecarrell	5	19.10	6	8.20	6	15.47	6	17.00	British	Norton Lilly & Co	400.0	52.0	25.0	New Orleans	Adelaide	General	6,470	5,790	4,067
Oak Branch	6	10.30	6	10.40	6	16.49	7	12.30	British	F. & W. Ritson	385.0	49.9	20.0	Liverpool	Talcahuano	General	3,800	5,209	4,035
Shreveport [1]	6	12.38	6	12.45	6	18.55	6	20.00	American	Cities Service Co	435.0	56.0	20.0	New York	San Pedro	Ballast		7,411	5,109
U. F. C. No. 3 [7]	5		6		6	14.28			American	United Fruit Co				Cristobal	Gatun Lake	Unknown		8	8
Cathwood [1]	7	3.00	7	6.25	7	13.28	7	16.30	American	Union Oil Co	435.0	56.0	19.6	New York	Los Angeles	Ballast		7,482	5,143
Mauna Loa	30	21.35	7	6.22	7	14.24	7	23.01	American	Inter-Island Steam Navigation Co	180.5	34.0	15.6	Galveston	Honolulu	Coke, sulphur	963	1,170	702
Canadian Transporter	7	6.10	7	7.25	7	15.16	7	20.54	British	Canadian Govt. Mer. Marine	400.0	52.4	18.4	Avonmouth	Vancouver	General	4,300	6,228	4,491

[1] Tanker. [2] Sail boat. [3] Submarine. [4] Tug. [5] Mine sweeper. [6] Sub chaser. [7] Barge.

Tustem [1]	7	9.15	7	10.25	7	16.56	7	18.10	American	Atlantic Refining Co	425.0	57.2	18.4	Philadelphia	Los Angeles	Ballast		7,204	4,768
Georgian	7	10.15	7	10.50	7	17.40	7	18.30	American	American-Hawaiian Line	386.8	52.2	20.0	Jacksonville	San Francisco	Fuller's earth	4,200	5,719	4,023
Santa Elisa	7	8.53	7	12.10	7	18.26	8	16.20	American	Grace Line	360.3	51.7	22.10	New York	Talcahuano	General	1,918	5,957	4,325
Montevideo	6	18.15	8	6.12	8	13.12	8	14.55	Spanish	Spanish Line	410.0	48.0	21.6	Barcelona	Valparaiso	General	343	5,509	3,593
Ramapo [1]	4	16.08	8	7.05	8	14.52	8	16.05	American	U. S. Navy	476.0	60.0	16.6	Cristobal	San Pedro	Ballast			
Tremeadow	7	17.15	8	8.25	8	16.05	8	17.15	British	Edward Hain & Son., Ltd	400.0	52.0	23.6	New York	Melbourne	General	5,500	5,797	4,090
Kroonland	8	13.05	8	13.30	8	20.34	9	11.24	American	Panama-Pacific Line	560.0	60.2	25.0	New York	San Francisco	General	1,740	13,514	9,127
Jamaica	2	17.40	9	6.07	9	14.44	9	16.32	British	Pacific Steam Navigation Co	220.0	33.1	13.4	Cristobal	Champerico	General	822	1,187	622
Duendes	8	14.10	9	6.20	9	14.06	9	16.32	British	Pacific Steam Navigation Co	390.0	50.0	23.8	Glasgow	Corral	General	4,491	6,006	4,287
Stuart Dollar	9	5.48	9	7.30	9	14.46	9	15.45	American	Dollar Line	429.0	55.2	19.0	New York	Vancouver	General	2,666	7,584	5,538
President Hayes	9	3.10	9	8.33	9	15.24	9	20.34	American	Dollar Line	502.1	62.2	27.0	New York	San Francisco	General	1,790	12,023	8,443
Kentuckian	9	5.55	9	9.15	9	16.57	9	17.57	American	American-Hawaiian Line	414.4	53.7	23.8	Philiadelpha	Portland	General	5,269	7,049	4,941
Alameda [1]	9	6.05	9	10.40	9	18.01	9	18.58	American	United American Line	430.0	58.2	19.6	Fall River	San Pedro	Ballast		7,425	5,097
Commercial Guide	9	6.25	9	11.22	9	18.41	9	23.56	American	Moore & McCormack Co	406.7	55.2	19.6	New York	Seattle	General	2,900	6,597	4,752
District of Columbia [1]	9	10.38	9	12.27	9	19.30	9	23.15	American	Walker & Daly (S. B.)	431.0	59.2	16.0	New York	Los Angeles	Ballast		8,097	5,431
Roy [8]	7		9		9	11.37			American	J. A. Walker				Cristobal	Gatun Lake	Ballast		2	2
Golden Rod [9]			9		9	11.37			American	J. A. Walker				Cristobal	Gatun Lake			4	4
Norwich City	9	18.55	10	6.15	10	13.34	10	15.00	British	Reardon Smith Line	390.0	53.0	21.6	New York	Brisbane	General	5,200	6,051	4,514
Tuscaloosa City	9	21.55	10	6.45	10	14.41	10	15.45	American	Isthmian Lines	424.0	56.0	26.6	Baltimore	San Diego	General	8,489	7,611	5,450
Walter Jennings [1]	9	23.45	10	7.25	10	15.27	10	16.34	American	Standard Oil Co	499.2	68.1	19.6	New York	San Pedro	Ballast		11,037	7,995
Wiegand	10	6.00	10	11.00	10	17.54	10	18.55	German	Roland Line	393.0	54.0	24.10	Hamburg	Valparaiso	General	7,093	6,573	4,629
Robert E. Hopkins [1]	10	11.25	10	11.40	10	18.55	10	19.50	American	Tidewater Oil Co	424.4	58.2	20.0	New York	San Pedro	Ballast		7,333	5,244
Agwibay [1]	10	11.35	10	12.10	10	19.51	10	21.05	American	Agwi Steamship Co	468.3	62.7	19.5	New York	San Pedro	Ballast		9,776	6,903
Ballena	10	6.40	10	13.08	10	20.55	10	22.05	British	Pacific Steam Navigation Co	400.1	52.0	24.9	Hull	Coronel	General	7,044	5,816	4,113

[1] Tanker. [8] Launch. [9] Barge, towed by *Roy*.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Venezuela	3	9.50	4	6.19	4	13.03	5	16.09	American	Pacific Mail Steamship Co	380.0	48.1	23.6	San Francisco	New York	General	3,009	6,033	4,353
Herakles	3	17.00	4	6.40	4	14.55	4	14.55	Norwegian	Bruusgaard Kiosterud	390.0	54.0	24.8	Iquique	Savannah	Nitrate	8,100	5,860	4,220
Ramapo [1]	3	18.30	4	7.41	4	16.08	8	7.05	American	U. S. Navy	461.6	60.0	28.11	San Pedro	Cristobal	([10])	10,000	8,692	6,499
Volumia	3	23.54	4	7.49	4	17.10	4	17.55	British	Gow, Harrison & Co	423.6	56.0	24.2	Vancouver	Gibraltar	Bulk, grain	8,170	6,229	4,524
Montrolite [1]	4	3.30	4	8.14	4	17.45	4	17.45	British	Imperial Oil Co	421.4	57.0	27.0	Talara	Halifax	Crude oil	9,600	7,378	4,752
Nordkap	4	7.00	4	8.45	4	18.15	4	16.15	Danish	Ardmore Coal & Steamship Co	350.0	42.7	23.6	San Antonio	Charleston	Nitrate, copper	5,435	3,755	2,712
San Ugon [1]	4	7.10	4	9.17	4	19.39	5	13.00	British	Eagle Oil Transport Co	413.0	53.4	25.0	San Pedro	London	Gasoline	7,506	5,976	4,069
Lillian Luckenbach	4	7.55	4	9.46	4	18.45	4	18.45	American	Luckenbach Line	448.9	60.2	29.6	Portland	Boston	Lumber, general	8,000	9,294	6,865
Benreoch	4	9.10	4	10.16	4	20.10	4	22.05	British	Ben Line	420.1	54.0	26.6	Vancouver	United King	Wheat	8,303	6,425	4,068
Peter Kerr	4	9.55	4	10.47	4	21.05	4	21.05	American	United American Line	415.0	55.7	29.6	Portland	Baltimore	([11])	9,000	7,704	5,707
Singapore Maru	4	14.00	4	14.38	4	22.00	4	23.05	Japanese	Kokusai Kisen Kabushiki Kaisha	385.0	51.0	27.9	Portland	Limerick	Wheat	7,629	5,914	4,389
Sun [1]	4	16.36	5	6.25	5	14.50	5	14.50	American	Sun Oil Co	382.0	49.9	23.0	San Francisco	Jacksonville	Gasoline	6,400	5,021	3,324
Yorba Linda [1]	4	17.15	5	6.49	5	15.20	5	15.20	American	General Petroleum Corp	435.0	52.2	28.0	Los Angeles	Thameshaven	Gasoline	10,600	7,424	5,077
Kurdistan	4	21.50	5	7.27	5	16.25	5	19.50	British	Common Brothers	380.1	53.5	22.0	Vancouver	Europe	Wheat	6,859	5,342	3,929
Essequibo	5	6.30	5	8.38	5	17.07	5	23.55	British	Pacific Steam Navigation Co	460.0	67.6	25.0	Valparaiso	New York	([12])	3,327	9,099	6,117
Cold Harbor	5	4.30	5	8.43	5	17.05	5	17.05	American	Barber Steamship Lines, Inc	390.0	54.0	23.7	Vancouver	New York	Lumber, general	5,887	6,167	4,290
Surailco	5	5.00	5	8.53	5	18.10	6	4.05	American	Transmarine Corporation	324.0	46.0	21.6	Willapa	Port Newark	Lumber, general	3,300	3,894	2,612
Plum Branch	5	6.00	5	9.18	5	18.00	5	22.45	British	Nautilus Steamship Co	398.0	53.8	23.0	Valparaiso	Liverpool	([13])	4,948	5,761	3,881

[1] Tanker. [10] Fuel oil and Navy stores. [11] Lumber, wheat, and general. [12] Copper, nitrate, grain, and general. [13] Nitrate, sugar, grain, general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
J. W. Van Dyke [1]	5	11.15	5	12.08	5	21.40	5	21.40	American	Atlantic Refining Co	435.0	56.0	28.0	San Pedro	Philadelphia	Crude oil	10,000	7,462	5,118
Somme	4	18.45	5	13.12	5	20.05	5	20.05	American	U. S. Government	448.0	56.0	28.0	San Francisco	New York	General	967		
Texan	5	20.15	6	6.20	6	13.50	6	13.50	American	American-Hawaiian Line	471.0	57.2	23.0	Seattle	Boston	General	6,040	9,154	4,282
Steel Mariner	6	5.15	6	7.12	6	16.00	6	16.00	American	U. S. Steel Products Co	424.2	56.2	23.9	Tacoma	New York	Lumber	6,188	7,611	5,450
Junin	6	10.10	6	11.17	6	19.00	6	23.20	British	Pacific Steam Navigation Co	391.5	50.2	24.0	Corral, Chile	Liverpool	General	5,981	5,933	4,282
Georgie	6	17.15	7	6.11	7	14.20	8	2.46	French	Cia Gle. Transatlantique	410.1	52.7	25.1	Seattle	Havre	([17])	7,303	6,830	4,932
Baltic [1]	6	21.35	7	7.25	7	15.25	7	15.25	Danzig	Standard Oil Co	509.5	64.1	28.6	San Pedro	Montreal	Crude oil	13,688	10,550	7,916
Canadian Importer	6	22.20	7	8.36	7	15.55	7	16.45	British	Canadian Govt. Mer. Marine	400.5	52.4	22.9	Vancouver	Montreal	Lumber, general.	6,000	5,891	4,186
San Salvador [1]	7	10.15	7	11.10	7	19.05	8	1.15	British	Eagle Oil Transport Co	421.1	52.0	26.6	San Pedro	London	Gasoline	7,409	6,157	4,137
Selma City	7	9.07	7	12.00	7	20.25	8	4.25	American	Isthmian Steamship Lines	424.2	56.2	26.0	Tacoma	Liverpool	General	8,169	7,611	5,450
Sagadahoc	7	3.45	7	13.01	7	21.10	7	21.10	American	Panama-Pacific Line	420.5	54.2	27.6	Iquique	New Orleans	Nitrate of soda	9,000	7,340	5,342
John D. Archbold	7	13.15	7	14.10	8	0.05	8	0.15	American	Standard Oil Co	554.9	75.3	31.7	San Pedro	New York	Crude oil	19,652	14,785	10,313
Lima [14]	7	17.15	8	6.02	8	13.40	9	1.15	Swedish	Johnson Line	364.0	51.5	23.2	San Francisco	Stockholm	([18])	5,371	5,304	3,900
F. J. Luckenbach	7	18.10	8	7.12	8	14.35	8	14.35	American	Luckenbach Line	446.0	56.1	20.0	Portland	Mobile	General	2,200	8,508	6,179
Thomas P. Beal	7	18.30	8	7.58	8	15.50	8	15.50	American	Mystic Steamship Co	394.1	55.1	24.0	Everett	New York	Lumber, general.	6,875	7,047	5,100
Nordlys	7	24.00	8	9.17	8	17.35	8	17.35	Danish	Wessel Duval & Co	362.2	51.5	23.9	Iquique	Norfolk	Nitrate of soda.	6,350	4,932	3,458
Holger	8	2.00	8	10.15	8	18.40	8	19.30	German	Roland Line	437.0	53.0	24.0	Tacoma	London	General	7,000	6,431	4,693
Breda	8	6.30	8	11.43	8	18.50	8	22.20	Dutch	Royal Netherlands W. I. Mail	402.6	58.3	26.0	Chile	Hamburg	General	7,936	7,384	5,226
Cubore	8	10.00	8	12.11	8	19.45	8	19.45	American	Ore Steamship Corporation	450.6	57.2	28.3	Cruz Grande	Baltimore	Iron ore	10,500	7,956	4,866
Urubamba	8	10.45	8	13.05	8	20.00	12	9.30	Peruvian	Peruvian Line	382.2	46.1	17.5	Callao	Cristobal	General	1,277	4,803	2,751
Wales Maru	8	13.35	8	14.38	8	22.35	9	3.17	Japanese	Kawasaki Kisen Kaisha	405.0	53.0	26.6	Portland	Fayal	Wheat	8,000	7,043	5,077
Mademoiselle [15]			8						American	Sergeant Norick				Balboa	Gatun Lake	Ballast			
Ionic	8	12.35	9	6.21	9	13.05	9	14.45	British	Shaw, Savill & Albion Co	500.3	63.3	25.6	Auckland	London	General	4,390	12,872	9,577
Chuky [1]	9	5.00	9	7.15	9	15.35	9	16.58	British	Chile Steamship Co	440.0	56.0	27.6	Talara	Charleston	Crude petroleum	10,175	7,691	4,723
William Rockefeller [1]	9	6.32	9	8.04	9	17.05	9	17.05	American	Standard Oil Co	554.9	75.3	32.0	San Pedro	New York	Crude oil	19,408	14,785	10,313
Ares	9	10.30	9	12.00	9	19.30	11	9.50	Dutch	Royal Netherlands W. I. Mail	340.9	48.2	20.8	Corral	Hamburg	General	3,410	4,385	3,195
Milwaukee	6	14.45	10	6.25	10	14.10	10	14.10	American	U. S. Navy	555.0	55.0	17.0	Amapala	East coast U.S.				
W. S. Rheem [1]	9	16.00	10	7.11	10	17.18	10	17.18	American	Standard Oil Co	500.0	68.2	29.6	Los Angeles	New York	Crude oil	15,000	11,224	7,860
Santa Rosa	9	21.40	10	8.13	10	16.45	11	0.24	American	Pacific Mail Steamship Co	404.6	53.9	23.6	San Francisco	New York	([19])	4,004	6,754	4,780
Orinoco	10	1.00	10	8.38	10	17.40	10	17.40	American	Oriental Navigation Co	376.4	52.3	24.6	Portland, Ore.	Boston	General	6,000	5,455	3,902
Eurana [1]	10	4.00	10	9.12	10	18.45	10	18.15	American	International Mer. Marine Co	435.8	56.3	25.2	San Francisco	New York	Oil in bulk	8,500	6,989	4,977
Hugoton [1]	10	5.15	10	9.25	10	18.45	10	18.45	American	C. D. Mallory & Co	434.8	56.2	28.0	San Diego	Baton Rouge	Crude petroleum	10,524	7,429	5,175
Vancolite [1]	10	5.27	10	12.38	10	21.00	10	21.00	British	Imperial Oil Co	499.2	68.1	29.6	Talara, Peru	Charleston	Crude oil	15,221	11,043	7,874
Seekonk	10	11.30	10	13.38	10	21.55	10	21.55	American	United American Lines	390.0	54.2	24.0	Seattle	Baltimore	Lumber, general.	6,411	6,162	4,417
Jim [16]			10	6.36					American	W. A. Stevenson									
City of Para	10	10.30	10	15.02	10	23.13			Panaman	Pacific Mail Steamship Co	340.0	38.6	24.0	Champerico	Cristobal	([20])	2,420	3,739	2,459

[1] Tanker. [14] Motor ship. [15] Sail boat. [16] Launch. [17] Grain, metal, and coffee. [18] Barley, fruits, coffee, and general. [19] Copper, canned goods, and general. [20] Coffee, sugar, and general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 574, column 2.)

Notice to Mariners.—Aids to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 7, 1924.

The Commanding Officer of the U. S. S. *Denver* informs the chief hydrographer as below, under date of May 2, 1924:

1. The gasoline drums which formerly marked the rocky shoal extending immediately to the westward of the town of Amapala, Honduras, and the shoal extending westward into the channel from Caracolita Islet, in the approaches to this harbor, appear to have disappeared some time previous to the arrival of this vessel on the 2d April, 1924.

2. A beacon was established on the shoal immediately to the westward of Amapala, and a gasoline drum anchored over the pinnacle rock to the westward of Caracolita Islet, by this vessel. This information was transmitted to the hydrographer, The Panama Canal, who broadcasted it as a notice to mariners. Sometime later the beacon disappeared, due probably to having been run down at night by one of the heavy lighters used at this port. The beacon was then replaced by a gasoline drum painted red and anchored in 22 feet of water at mean low water. Its position is now a little over 100 yards from the shore. The other gasoline drum is also painted red and rides from a span approximately over the pinnacle rock in the channel, a little over 100 yards to the westward of Caracolita Islet. Both buoys may be approached close to by vessels drawing up to 25 feet of water.

3. These buoys are of great assistance in entering or leaving theh arbor, and it is believed they will last for some time, that is, until the drums rust through and sink. (Signed) W. N. Jeffers.

JAY J. MORROW,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 10, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Acajutla	Pacific Steam Navigation Co		May 4.		1,163
Calamares	United Fruit Co	May 4.	May 4.	10	421
Venezuela	Pacific Mail Steamship Co	May 4.	May 5.	1,393	296
Ansaldo San Giorgio	National Navigation Society	May 4.	May 5.	62	(2)
Ebro	Pacific Steam Navigation Co	May 4.	May 5.	90	70
La Navarre	French Line	May 4.	May 6.	50	170
Essequibo	Pacific Steam Navigation Co	May 5.	May 5.	20	382
Heredia	United Fruit Co	May 5.	May 5.	397	1
Santa Olivia	Pacific Mail Steamship Line	May 5.	May 6.	303	363
Pastores	United Fruit Co	May 6.	May 7.	188	528
Turrialba	United Fruit Co	May 6.	May 8.	978	86
Montevideo	Spanish Line	May 6.	May 8.	206	348
Asian	Leyland Line	May 6.	May 8.	570	69
Georgie	French Line	May 7.	May 7.	(1)	498
Heredia	United Fruit Co	May 7.	May 7.	(1)	9
Sixaola	United Fruit Co	May 7.	May 8.	207	198
Metapan	United Fruit Co	May 7.	May 8.	(1)	136
Lima	Johnson Line	May 8.	May 8.	16	463
Kyphissia	Hamburg-American Line	May 8.	May 9.	530½	29¾
Urubamba	Peruvian Line	May 8.		1,277	
Ares	Royal Netherlands W. I. Mail Co.	May 9.		438	
Baldhill	Walker & Daly	May 9.		8,499	
Jamaica	Pacific Steam Navigation Co		May 9.		826
Santa Rosa	Grace Line	May 10.	May 10.	250	124
Colombia	Pacific Mail Steamship Co	May 10.		278	
City of Para	Pacific Mail Steamship Co	May 10.		2,420	
Ballena	Pacific Steam Navigation Co	May 10.	May 10.	72	6

(1) No cargo discharged. (2) No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 10, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
U. S. S. Sapelo	U. S. Navy	May 10.	May 13.	10,000	

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Panama, Panama;" in the United States, "Panama, Washington."

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in nearly 10 years of operation.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 572.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 4	Calamares	United Fruit Co	Port Limon.	May 4	Calamares	United Fruit Co	New York via Habana.
May 4	La Navarre	French Line	St. Nazaire via wayports.	May 5	Heredia	United Fruit Co	Bocas del Toro.
May 5	Heredia	United Fruit Co	New Orleans via Habana.	May 6	La Navarre	French Line	St. Nazaire via wayports.
May 6	Pastores	United Fruit Co	New York via Habana.	May 7	Heredia	United Fruit Co	Bocas del Toro.
May 6	Turrialba	United Fruit Co	New Orleans via Habana.	May 7	Pastores	United Fruit Co	Port Limon.
May 6	Asian	Leyland Line	Liverpool via wayports.	May 8	Sixaola	United Fruit Co	Colombian ports.
May 7	Sixaola	United Fruit Co	New York via Kingston.	May 8	Turrialba	United Fruit Co	New Orleans via wayports.
May 7	Heredia	United Fruit Co	Bocas del Toro.	May 8	Metapan	United Fruit Co	New York via Kingston.
May 7	Metapan	United Fruit Co	Colombian ports.	May 8	Asian	Leyland Line	New Orleans.
May 8	Kyphissia	Hamburg-American Line	Hamburg via West Indies.	May 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
May 8	St. Mihiel [1]	U. S. Army	New York via San Juan.	May 9	Kyphissia	Hamburg-American Line	Puerto Barrios.
May 9	Ulysses and Darien [2]	Panama Railroad Steamship Line	Norfolk.				

[1] Transport. [2] Barge.

PORT OF BALBOA.

May 4	Regulus	R. S. Silva & Co	Taltal, Chile.	May 4	Regulus	R. S. Silva & Co	San Francisco.
May 6	Tosca	Winge & Co	Valparaiso.	May 7	Tosca	Winge & Co	San Francisco.
May 7	Ginyo Maru	Toyo Kisen Kaisha	Hongkong.	May 8	Ginyo Maru	Toyo Kisen Kaisha	Valparaiso.
May 9	Salvador	Pacific Steam Navigation Co	Champerico.	May 9	Salvador	Pacific Steam Navigation Co	Buenaventura.

* Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., May 21, 1924. No. 41.

Traffic During the First Fifteen Days of May.

From May 1 to 15, inclusive, 208 commercial vessels and 8 launches, measuring under 20 tons, passed through the Canal. Tolls on the 208 commercial vessels amounted to $967,701.76, and on the 8 launches to $63.75, making a total tolls collection for the period of $967,765.51.

The average daily number of commercial transits during these 15 days was 13.87 and the average daily collection of tolls thereon was $64,513.45. The average daily tolls on all traffic was $64,517.70. This is under the daily average for the first 10½ months of the current fiscal year, but a gain over the rate in March and April, as may be seen from the following tabulation.

Comparison of the first 10 months of the current fiscal year and the first 15 days of May, 1924, is shown in the following tabulation, with totals for the current fiscal year to May 15, and the daily averages for the same period, commercial traffic only:

Month.	Total transits.	Tolls.	Daily average transits.	Daily average tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.12
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,335,729.81	16.32	75,346.12
January, 1924	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
May (15 days only)	208	967,701.76	13.87	64,513.45
Totals, fiscal year to May 15, inclusive	4,644	21,510,079.17	14.07	66,594.67

The average tolls paid by each commercial vessel during the first 15 days of May was $4,652.41.

New Relay Pump Barge for Panama Canal.

An electrically driven floating relay booster plant, designed for use in connection with pipe-line suction dredges for lifting spoil to higher levels or depositing at greater distances than is possible with the dredge alone, was placed in service in Gaillard Cut on March 31, 1924, and has been in use since that date. This plant consists of two 20-inch centrifugal pumps, one of 750 and the other of 550 horsepower, installed in the hull of the old sand and rock barge *No. 3*. The pumps are so arranged that one discharges into the suction of the other, thus obtaining the properties of a 2-stage pump, or the second may be by-passed when desired for use on shorter or less elevated pipe lines. The plant is portable, contains necessary auxiliary pumps for water service, transformers for stepping down transmission line potential of 11,000 volts

to 2,200 volts for operating, and may be used at any point where 3-phase power at 11,000 or 2,200 volts is available.

Connection between the dredge and relay pump is effected by means of pontoon pipe and a pontoon of special design is provided adjoining the intake of the first pump, by means of which, through the agency of two 20-inch flap valves installed in a submerged side outlet, and which are normally closed, the first relay pump will automatically take water whenever for any reason the dredge fails to supply material under pressure. This feature is particularly desirable for preventing pipeline plugs as the line may be cleared with water even though the dredge shuts down without notice.

The plant was in successful operation throughout the month of April, 1924, part of the month relaying material a distance of 9,739 feet and over a maximum elevation of 61 feet. The total length of line from dredge to outfall was 10,761 feet or over 2 miles. The indications are that the plant can be expected to handle material efficiently to elevations of over 250 feet through short lines (under 1,500 feet), or through a total pipe-line length of about 3 miles for low lifts (under 20 feet).

The cost of handling Cut maintenance material with this plant is less than 50 per cent of the cost of handling the same class of material with dipper dredges. Delays to operation chargeable to the relay barge in April were only 24 per cent of the total delays to the entire plant.

Origin, Destination, and Classification of Cargo Passing Through the Panama Canal During the Calendar Year, 1923.

In tables numbered I and II, published on pages 580 and 581 of this issue, will be found statements of the origin and destination of all cargo passing through the Canal during the calendar year 1923.

CARGO FROM ATLANTIC TO PACIFIC—ORIGIN.

It will be noted that 71.6 per cent of all cargo passing through the Canal from the Atlantic to the Pacific originated on the east coast of the United States, and 20.6 per cent in the British Isles and Europe, and that shipments through the Canal from these areas show a relative as well as an actual increase over the previous year. The cargo from the east coast of the United States increased by 1,076,319 tons, that from the British Isles by 74,373 tons and that from the continent of Europe by 321,431 tons. Cargo from the east coast of Mexico showed a decrease of 106,685 tons, 99,333 tons of this decrease being in the Mexican oil trade.

CARGO FROM ATLANTIC TO PACIFIC—DESTINATION.

When segregated according to destination it is found that 45.2 per cent of all cargo from the Atlantic to the Pacific was destined to the west coast of the United States, 19.5 per cent to the Far East, 15 per cent to the west coast of South America, and 14.3 per cent to Australasia. Cargo to the west coast of the United States showed an increase of 1,157,522 tons; to the west coast of South America, 87,071 tons; to Australasia, 318,761 tons. Cargo to the Far East shows a decrease of 331,464 tons, and the compilation shows a decrease of 29,368 tons in cargo destined to the west coast of Canada, but there is a probability of error in this item from the difficulty of distinguishing clearly on the

basis of the cargo declarations between shipments to Canadian and United States ports. It will be noted that 68,328 tons of cargo of doubtful or unascertained destination is listed under the heading, "West Coast of North America."

CARGO FROM PACIFIC TO ATLANTIC—ORIGIN.

Of cargo moving from the Pacific to the Atlantic during the calendar year 1923, 69.6 per cent originated on the west coast of the United States, 21 per cent on the west coast of South America, 3.7 per cent on the west coast of Canada, and 2.2 per cent in Australasia. Due largely to the shipments of crude oil from the southern California oil fields, cargo from the west coast of the United States in 1923 was nearly four times that during the year 1922. Cargo from the west coast of South America shows an increase of 141,290 tons, and from the west coast of Canada 276,775 tons. It will be noted that the principal regions of origin, with the exception of Australasia and the Far East, show actual increases and relative decreases. This is due to the extraordinarily large cargo tonnage moved in this direction during the year, the total in 1923 being nearly two and one-half times that in 1922, this in turn is due to very heavy shipments of crude oil.

CARGO FROM PACIFIC TO ATLANTIC—DESTINATION.

Segregated according to destination, 72.7 per cent of the cargo moving from the Pacific to the Atlantic during the year was destined to the eastern and Gulf seaboard of the United States, and 19.8 per cent to the British Isles and the continent of Europe. All destinations show actual increases, though, due to the heavy shipments of crude oil, most of which went to the eastern seaboard of the United States, most show relative decreases. .

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify a little more than 72 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 28 per cent consisted for the most part of manufactured articles in small lots reported as "general cargo."

Westbound commodities which aggregated more than 100,000 tons in either the calendar year 1923 or 1922, are listed in the following tabulation:

Commodity.	Calendar year 1923.	Calendar year 1922.
	Tons.	*Tons.*
Ammonia	105,337	47,148
Cement	221,507	61,096
Coal and coke	243,141	386,922
Cotton	130,654	97,955
Manufactured goods:		
Iron and steel	1,778,213	1,376,202
Machinery	198,370	120,856
Railroad material	171,798	186,117
Textiles and other	245,919	153,615
Metals, various	317,227	194,244
Oils, various	1,116,419	1,129,858
Paper and paper pulp	116,023	66,111
Sulphur	141,259	107,894
Sugar	24,137	160,071

The above 13 commodity groups make up approximately 62 per cent of the total cargo carried westbound during the calendar year, 1923.

All items except coal and coke, manufactured goods, railroad material, various oils, and sugar, show substantial increases.

PRINCIPAL COMMODITIES—PACIFIC TO ATLANTIC.

It was possible to classify approximately 96 per cent of all cargo moving from the Pacific to the Atlantic during the calendar year 1923. Commodities which aggregated more than 100,000 tons in either 1923, or 1922, are listed below:

Commodity.	Calendar year 1923.	Calendar year 1922.
	Tons.	*Tons.*
Barley	259,951	357,752
Canned goods, (fish, fruits, vegetables, etc.)	429,661	459,140
Food products in cold storage	247,413	108,584
Lumber	1,656,776	1,121,705
Metals, various	375,747	254,600
Nitrates	1,814,521	992,086
Oils, various	9,192,963	800,802
Ores, various	825,486	441,033
Sugar	294,683	277,280
Wheat	682,576	772,443
Wool	80,632	143,292

The above 11 commodity groups comprise nearly 92 per cent of the total cargo moving from the Pacific to the Atlantic during the calendar year 1923. It is to be noted that oils for the year 1923 are over 11 times the quantity shown for the year 1922, and also that lumber for the year 1923 is nearly 50 per cent heavier than for the year 1922. All the other commodities listed show increases except barley, canned goods, wheat, and wool.

A detailed list of all commodities in transit through the Canal in both directions, classified according to origin and destination, will be found in tables numbered III and IV on pages 582 and 587.

Transit of Old Bay Line Steamer "Florida."

The old Bay Line steamer *Florida* transited the Canal on May 1, en route from Baltimore to San Francisco. According to *The Nautical Gazette*, this vessel was formerly employed on the run from Baltimore to Norfolk but has been replaced by larger steamers. Consequently she was sold to the Monticello Steamship Co. of Vallejo, Calif., to be used as a passenger and freight vessel between that point and San Francisco.

A voyage from Baltimore to San Francisco, nearly 6,000 miles, was considered an undertaking of some magnitude for a vessel that has been confined to sheltered waters as has been the *Florida*. In order to enable her to withstand rough weather in the Atlantic or Pacific, the whole of the *Florida's* main deck was boxed in with heavy timbers and other parts of her decks were strengthened. She had encountered no serious difficulties in the Atlantic.

Dry Season, 1924.

The chief hydrographer has made a detailed report to the engineer of maintenance on weather, lake, and lockage conditions during the dry season which began about December 19, 1923, and ended about April 19, 1924, from which the following is abstracted:

The season was of average duration and, from a water supply standpoint, the fifth driest in the last 13 years.

The Chagres River discharge at Alhajuela was 21 per cent below the 23-year 4 months (January to April, inclusive) dry season average, or 999 c. f. s. against a

mean of 1,262 c. f. s. The minimum discharge of the Chagres for the 4 months was 320 c. f. s., on April 19 and 20; the maximum discharge for the same period was 16,528 c. f. s., on April 23.

Gatun Lake fell to elevation 83.86 feet on April 20, from which date the recovery of storage began. The extra economical use of water at the Gatun hydroelectric station and Canal locks amounted to approximately 7.17 billion cubic feet. That is, had there been no saving of water the minimum lake elevation would have been 82.29 feet. Approximately 2.25 billion cubic feet can be conserved monthly at the Gatun hydroelectric plant by making power at Miraflores, and the locks demonstrated that they can save approximately one-fourth of the water ordinarily used in non-crossfilling operation. With Canal traffic similar to December, 1923, it is possible to save approximately 1.00 billion cubic feet per month. This total conservation of 3.25 billion cubic feet monthly for 5 months' dry season would amount to 16.25 billion cubic feet, or the equivalent of 3.5 feet of storage in Gatun Lake, *i. e.*, one-half of the total storage between elevations 87 and 80 feet.

A loss in storage of 14.19 billion cubic feet occurred during the dry season, compared with 19.99 billion cubic feet for last year, and 24 billion cubic feet for 1920.

A total of 1,825 lockages (the sum of those at Gatun and Pedro Miguel, divided by 2) were made during the 4-months' period, January to April, inclusive, compared with 1,572 lockages for the same period last year. The water drawn from the lake for these lockages was 11.4 and 11.1 billion cubic feet, respectively.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 19, 1924.

The following item appeared in a recent U. S. Navy Hydrographic Office *Notice to Mariners:*

1. "*Cupino Beach light*—Information has been received through the Department of State, indicating that Cupino Beach light is flashing white, showing 1 flash every 10 seconds. Approximate position 11° 00′ 15″ N., long. 74° 57′ 55″ W.

2. *Buenaventura River*—Shoal reported. The third officer of the British steamship *Almagro* reports that at 4.30 p. m., on March 27, 1924, his vessel, drawing 17 feet of water, stranded on an uncharted shoal in Buenaventura River, on following bearings:

Arena Point, right tangent, 13°,
Cobee House, 51°,
Limones Point, right tangent, 207°,
Point west of Arena Point, left tangent, 315°.

JAY J. MORROW,
Governor.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended May 19:

Steamships *Cristobal*, manufacture 3 snap rings for port H. P. pistons and steel bracket for anchor winch brake band; repair arm for skylight lifting gear, and steam press in pantry; clean boilers; complete sheet metal and wood work in refrigeration room; shellac inside of new ice box and paint bulkheads of same, forward and aft, as directed by chief engineer; continue calking of saloon deck, etc.; *Salvador*, straighten driving shaft No. 2 port winch, and fit ring to shaft to hold clutch in position; fit spare clutch and pinion on drive shaft of No. 2 starboard winch and fit ring to shaft; renew iron friction pipe for refrigeration circulating pump; repair and retain 6 stew pans, etc.; *City of Para*, put cement patch over hole in condenser; renew studs in blow down valve and one section of vapor pipe from evaporator, etc.

Minor repairs—Steamships *Seostris*, *Robin Goodfellow*, *Crynssen*, and *Firmore*, schooner *Impco*, tug *Favorite*, and launch *Dorothy*.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Table I.—Origin and Destination of all Commercial Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, During the Calendar Year, 1923.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—										
	Miscellaneous.	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals, from Atlantic ports.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	North America, west coast.[1]	Hawaii.	Miscellaneous.
January	.....	2,914	8,236	6,882	20,427	8,362	61,935	105,117	381,870	598,743	100,462	288,612	87,398	75,253	20,395	9,107	7,044	.....	8,417	2,055	.....
February	.....	.....	1,230	5,500	21,466	7,378	55,925	65,636	406,304	563,439	72,087	303,742	86,447	80,772	854	4,560	9	.....	13,049	1,919	.....
March	.....	3,000	8,238	16,467	14,045	8,321	59,729	84,515	484,173	678,488	86,862	288,424	146,167	114,735	5,222	8,144	5,014	421	13,400	10,099	.....
April	.....	7,592	13,986	4,209	34,033	9,303	47,328	66,152	470,766	653,369	98,883	283,117	134,528	92,547	9,849	4,775	10,060	293	15,781	3,536	.....
May	.....	6,576	6,317	2,998	18,318	5,102	55,612	77,407	570,021	742,351	83,285	368,526	162,475	91,562	16,770	6,072	496	37	3,960	8,092	1,082
June	.....	567	1,483	11,550	20,220	9,061	45,478	89,063	487,567	655,989	85,458	326,970	120,161	86,318	11,083	4,123	8,380	3,538	.....	6,370	3,588
July	.....	1,388	6,916	9,847	11,402	7,344	98,813	56,452	497,870	690,032	84,732	363,520	113,226	102,861	6,681	4,779	2,476	3,000	167	8,590	.....
August	1,567	17	9,102	11,086	34,529	13,209	82,439	69,932	525,689	738,600	114,203	384,614	132,667	72,254	18,348	6,832	1,022	2,376	31	6,061	192
September	.....	.....	2,519	6,364	20,314	7,919	65,333	50,213	359,057	511,719	83,279	218,143	79,066	86,422	7,817	12,396	10,650	10,657	.....	947	2,342
October	437	2,366	9,461	11,525	28,130	6,174	52,214	77,201	435,209	622,747	139,558	218,576	123,899	102,859	5,292	4,460	460	948	3,533	1,028	22,134
November	.....	.....	7,815	19,024	24,217	5,833	68,243	42,655	471,097	632,914	88,733	269,674	140,790	95,334	200	11,151	6,421	.....	18	4,116	16,477
December	.....	3,010	8,953	6,416	52,765	8,990	65,858	83,618	501,658	734,278	133,200	242,658	195,970	114,689	12,005	6,287	9,503	1,809	9,972	8,185	.....
Totals, 1923	2,004	27,430	84,256	102,868	299,896	96,996	758,977	849,961	5,600,281	7,822,669	1,170,742	3,556,570	1,522,794	1,115,606	114,516	82,686	61,535	23,079	68,328	60,998	45,815
Totals, 1922	.....	152,255	74,355	59,090	406,581	85,079	437,516	795,588	4,523,962	6,534,456	1,083,671	2,399,048	1,854,258	796,845	143,884	44,296	74,712	4,652	54,227	51,110	27,753
Per cent of total cargo:																					
1923	.....	3.0	1.1	1.3	3.9	1.2	9.7	10.9	71.6	100.00	15.0	45.2	19.5	14.3	1.5	1.1	0.8	0.3	0.9	0.8	0.6
1922	.....	2.3	1.2	0.9	6.2	1.3	6.7	12.2	69.2	100.00	16.6	36.7	28.4	12.2	2.2	0.7	1.1	0.1	0.8	0.8	0.4

Table II.—Origin and Destination of all Commercial Cargo Passing Through the Panama Canal from the Pacific to the Atlantic, During the Calendar Year, 1923.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—								
	Miscellaneous.	West coast, North America.	Hawaiian Islands.	West coast, Central America.	West coast, Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Total, from Pacific ports.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast, Canada.	West Indies.	East coast, South America.	East coast, Mexico.	Miscellaneous.
January	.....	8,443	1,326	4,194	111,559	33,017	34,508	459,277	340,865	993,189	541,309	137,446	275,467	17,394	.....	18,622	2,951	.....	.....
February	4,289	27,391	.....	10,561	61,322	39,141	23,289	525,143	308,403	999,839	669,855	139,319	129,297	7,914	15,044	32,928	3,115	2,346	.....
March	56	15,959	.....	15,034	44,854	32,287	21,500	769,903	362,847	1,262,440	890,620	128,057	194,281	22,873	398	7,132	1,382	17,697	.....
April	3,127	11,886	.....	17,172	35,250	43,572	31,644	1,036,144	354,971	1,533,776	1,172,232	100,256	126,364	17,806	29,033	15,696	4,955	60,208	7,226
May	24,128	14,898	.....	15,074	70,951	40,263	23,782	1,117,430	216,266	1,522,732	1,128,759	126,159	104,583	18,509	30,097	17,902	25	96,698	.....
June	12,313	9,405	.....	4,751	54,155	36,405	19,471	1,145,992	157,962	1,440,457	1,050,596	127,151	61,752	29,986	23,899	22,399	3,760	120,914	.....
July	22,761	9,592	2,280	7,125	36,000	44,307	17,897	1,129,834	377,956	1,647,752	1,288,965	153,655	113,007	11,657	78	28,033	.....	25,453	26,904
August	13,854	.....	7,590	1,733	15,295	18,907	28,806	1,112,542	231,513	1,430,150	1,131,525	106,907	79,127	7,362	9,542	4,273	5,256	.....	86,158
September	6,688	.....	7,122	6,316	13,980	4,568	3,792	1,258,844	355,674	1,656,984	1,208,028	173,052	158,050	19,705	13,310	5,191	39	52,759	26,850
October	13,294	32,103	7,000	577	17,234	25,129	11,058	1,155,315	243,110	1,504,820	1,173,185	139,362	111,107	18,479	8,632	9,224	3,213	34,518	7,100
November	2,243	3,027	429	4,336	71,640	40,815	9,796	1,207,254	245,841	1,585,381	1,141,326	140,173	171,511	15,067	11,917	6,797	.....	92,674	5,916
December	.....	24,458	.....	4,637	101,881	23,509	13,337	1,140,292	452,242	1,760,356	1,193,452	172,833	267,788	30,960	14,000	8,716	11,322	61,285	.....
Totals, 1923	102,753	157,162	25,657	91,520	634,121	381,860	238,883	12,058,270	3,647,650	17,337,876	12,589,852	1,644,391	1,792,334	217,712	155,950	176,913	36,018	564,552	160,154
Totals, 1922	132,416	.....	37,695	83,671	357,346	386,946	382,099	3,561,212	2,234,710	7,176,098	3,849,030	1,597,369	1,354,505	138,434	27,577	124,380	.....	.....	84,803
Per cent of total cargo:																			
1923	0.6	0.9	0.1	0.5	3.7	2.2	1.4	69.6	21.0	100.0	72.7	9.5	10.3	1.3	0.9	1.0	0.2	3.2	0.9
1922	1.8	.....	0.5	1.2	4.9	5.4	5.3	49.6	31.3	100.0	53.6	22.3	18.9	1.9	0.4	1.7	.....	.....	1.2

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Atlantic to Pacific, During the Calendar Year, 1923.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—										
	Miscellaneous.	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	North America, west coast.	Hawaii.	Miscellaneous.
Aeroplanes							14		21	35		35									
Alum									292	292			292								
Aerated waters							71		1,101	1,172	15	1,135							22		
Agricultural implements				167		316	4,903	4,816	27,649	37,851	4,953	13,487	1,152	17,251	30	921				57	
Alcohol									53	53			53								
Ammonia				800		26	115		104,396	105,337		1,436	86,149	200		13		13		8,200	9,326
Ammunition							4	30	1,558	1,592	4	118	1,420	50							
Asbestos				45			30		1,071	1,146	118	55	873	45						55	
Asphalt					7,953	292	50	820	22,011	31,126	912	495	9,758	19,330	1						630
Automobiles				17,386		123	568	1,350	58,204	77,631	2,882	4,005	5,204	65,215	16	133	3		23	4	146
Auto accessories				3,963			67	48	5,918	9,996	221	2,322	1,710	5,743							
Bark, quebracho			256							256		256									
Beef			79			197			258	534	197	337									
Balsam									20	20		20									
Barley								2	56	58	56	2									
Bark, Peruvian						231	10			241	231					10					
Beans			78	130		84	753	63	373	1,481	105	587	95	219	52	400			10		13
Blood, tankage			12,493						100	12,593	100	9,125	3,368								
Bones, bone meal			5,844						517	6,361		4,248	2,113								
Borax							262	308	436	1,006	300	431		269		6					
Bricks, fire						22	3,116	8,696	2,649	14,474	2,012	9,345	506	70		22		1,582	927	10	
Calcium carbide				112		162	682		960	1,916	650	819	110	151		186					
Canned goods:																					
Fish			3	528		506	2,294	1,344	5,168	9,843	941	5,725	13	1,782	126	422	375	150	169		140
Fruit			46	50		246	222	153	1,721	2,438	208	1,537	42	107	146	308			90		
Meat			1,435	15		222	380	185	3,251	5,488	96	3,439	1,263	337	127	217			9		
Milk						122	3		1,082	1,207	1,071	34	48			54					
Vegetables						100	459	65	10,365	10,989	180	10,085	194	405	25	100					
Other			209			8	103	15	5,487	5,822	519	4,960	285	35	15	8					
Carbon, black									488	488	31	23	331	103							
Cement		88		20		4,254	152,128	32,500	32,517	221,507	92,771	108,115	1,315	4,296	580	4,661	2,221	1,030	606	5,912	
Chalk							3,847	1,288	8	5,143	262	4,881									
Chemicals				75		843	7,508	6,827	19,019	34,272	6,795	13,240	7,604	4,518	149	657		451	225	617	16
Clay, China fire							792	2,135	257	3,184	17	3,095							72		
Cereals							16			16		16									

Charcoal								100	424	524		424			100						
Chocolate									579	579		468	40	71							
Coal							1,452	58,249	93,940	153,641	75,451	44,868	2,600	640	1,610		9,800	4,597		7,738	6,337
Cocoa	2		721	701		637	562	556	520	3,699	96	2,219	116	972	239	7		50			
Coconuts			32			30		10	10	82	50	32									
Coffee	457	215	21,482			8,604	232	246	2,137	33,373	620	28,798	1,610	11	1,815		519				
Coke							1,014	47,680	40,809	89,503	55,536	30,525			100	3,039				303	
Cold storage:																					
Butter							75		69	144		65	4		75						
Caseine			56							56		50	6								
Cheese							212		49	261	1	260									
Eggs									379	379		379									
Lard				60		643			2,719	3,422	1,043	2,197			60	122					
Meat			271				20		477	768	475	293									
Tallow			47						50	97		47	50								
Other							487	38	1,712	2,237	78	1,984	5		100				70		
Copra							111		3,588	3,699	100		3,588		11						
Cork						24	6		1,176	1,206	30	1,176									
Corn						10	16		2,924	2,950	1,819	997	24	100		10					
Cotton			823			143	227	1,250	128,211	130,654	1,809	1,633	126,952	170		63			27		
Cosmetics									27	27			27								
Confectionery								145	1,513	1,658		1,626			32						
Cottonseed oil-cake									200	200		200									
Creosote							15,288	16,412	59	31,759		27,053			4,706						
Cyanide						258	30		82	370	46	90				234					
Drugs			191			21	57	45	1,538	1,852	428	1,092	225	23		81		1	2		
Dyes						20	23		761	804	23		761			20					
Dyewood							44	9	602	655	45		601	9							
Earthenware							180	5,010	868	6,058	2,292	3,023		220	523						
Explosives						2	617	1,474	4,937	7,030	2,062	3,630	60	1,278							
Extract, logwood									15	15		15									
Fertilizer			5,596			105	150	300	4,635	10,786		6,112	2,754	300		420					1,200
Flour						767	274	215	8,567	9,823	2,334	583	6,452	320	82	52					
Fruit, dried						2	249	846	602	1,699	101	831		469	188	10			100		
Fruit, fresh						138	1		2	141	3	78				60					
Fuller's earth								420	7,297	7,717		7,717									
Flint pebbles						90	2,006	550		2,646		1,412		550	594	90					
Granite							74			74		74									
General	947	17	5,873	35,875		53,781	209,900	283,018	1,583,041	2,172,452	270,049	1,216,564	188,977	400,031	26,361	31,307	159	812	22,684	2,959	12,549
Glassware				125		103	23,554	1,731	9,503	35,016	2,045	23,153	40	1,070	977	400	33		5,711	1,587	
Graphite									283	283		265	18								
Guano			2,670				315	152		3,137		2,790		32				315			
Glycerine									112	112		112									
Glue									2	2		2									
Glucose									374	374			337								37
Hardwood				200		53	2		2,338	2,593	201	2,138	42	12	200						
Hats						4	210	41	294	549	270	258	2	13		6					
Hemp						19	58	115	121	313	93	201				19					
Horns and hoofs			1,404						1	1,405	450	668	287								
Hair			48						415	463		463									

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Atlantic to Pacific, During the Calendar Year, 1923.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—										
	Miscellaneous.	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	North America, west coast.	Hawaii.	Miscellaneous.
Indigo						9	15		3,945	3,969	19		3,945			5					
Ink									65	65		15	50								
Jute						672	223	911	67	1,873	1,441	105		1	96	219		10		1	
Leather						5			121	126		70	31			25					
Linoleum							81	113	2,230	2,424	6	2,326			2				90		
Liquors		3	39	37		2,506	4,787	13,222	498	21,092	3,831	228	172	9,485	4,870	2,311		177	18		
Livestock	138		470	27		10	12	168	168	993	774			194		9		16			
Lumber			825	588		36			9,077	10,526	2,149	5,846	481	1,702	163		171			14	
Lithotome									472	472		472									
Lime						29			606	635	187	20	428								
Lampblack									20	20		20									
Magazines									121	121		121									
Malt									848	848	648		200								
Mfgd. goods:																					
Iron and steel			3,200	26,852	80	8,189	63,462	115,083	1,561,347	1,778,213	122,673	1,163,693	292,524	128,365	17,710	9,997	47	935	20,441	15,200	6,628
Machinery				4,276	190	2,164	13,593	29,907	147,940	198,370	36,168	68,436	44,728	41,574	765	3,071	260	251	2,647	200	270
R. R. material				1,569		162	29,624	22,441	117,999	171,798	31,580	35,877	78,309	19,216	1,900	476	110		3,008	105	1,217
Textiles				88		2,707	15,162	25,927	52,303	96,187	31,522	31,608	11,999	15,137	1,159	2,465		380	176	1,241	500
Other				218		1,272	7,421	16,273	124,548	149,732	11,977	100,285	15,948	16,133	1,563	1,189	420	75	1,600	209	333
Marble							964	235	422	1,621	573	1,006		22					20		
Matches						172	109		188	469		260				172		37			
Metals:																					
Aluminum							210		441	651		210	441								
Copper				86			507	1,104	2,377	4,074	603	707	1,517	874	356	1		1		15	
Iron				1		907	25,374	46,618	42,758	115,658	9,399	78,640	8,592	12,341	2,570	1,046		184	1,130	1,653	100
Lead						3	137	252	2,129	2,521	276	17	2,025	174	25	4					
Scrap		3,010					10	703	4,005	7,728	3,010	3,137	876	695		10					
Gold and silver									70	70	30	30	10								
Tin				82		132	3,092	19,243	159,910	182,459	6,101	116,410	30,754	4,706	10,175	64		102	2,380	11,767	
Zinc						3	148	297	476	924	188	205	230	48	250	3					
Other							805	424	1,913	3,142	583	829	1,330	390	10						
Milk, powdered									99	99	20	39	30								
Musical instruments									836	836		482		354							
Nitrates						111	8,175	589	2,728	11,603	1,833	4,300	1,315	778	200	117			510	2,400	150
Nuts			520			200	3	79	351	1,153		1,078			75						
Oats									78	78	33	45									

Oils:																					
Coconut									60	60		60									
Cottonseed							3		2,006	2,009	812	1,175				22					
Crude					279,595	7	13	550	63,667	343,832	281,083	157	4,820	1,215	15	9,243	34,410	9,889			
Glycerine									415	415		415									
Linseed			100				393	3,010	1,831	5,334	720	4,563		15	36						
Lubricating					2,137	170	218	509	101,297	104,331	6,212	19,614	54,832	19,929	280	672		879		854	1,059
Olive							1,788	289	1,112	3,189	1,235	1,631	323								
Refined			39		9,941	62	224	444	618,649	629,359	11,579	4,640	419,238	175,661	31	613	12,972				4,622
Vegetable						65	2,354	338	2,518	5,275	1,190	3,846	34	25	3	60		7	110		
Other						82	133	1,091	21,309	22,615	2,965	6,002	5,161	8,370	46	45		26			
Ores:																					
Copper							5		129	134	27		102			5					
Iron				31		405	2,290	11,167	181	14,074	1,229	7,638	128	3,908	700	471					
Magnesite							54	1,040		1,094		1,034			60						
Manganese							296	586		882	96	772		14							
Tin							2	859	5,030	5,882	1,313	1,150	2,032			872				515	
Zinc						10			48	58	10	48									
Other							311	695	1,125	2,131		969	1,121	41							
Lead							1,017			1,017		1,017									
Paint						251	71	2,013	1,892	4,230	436	1,638	190	1,692	20	254					
Paper roofing									1,696	1,696		924	722							50	
Patent fuel								9,300		9,300	9,300										
Peanuts									806	806		806									
Phosphates							8,769	1,890	13,539	24,198	16	1,764	12,385	9,585		273			175		
Plaster				236				410	222	898			160	738							
Potash							752	110	84	946		803	33	110							
Paper pulp				406			4,623	700	1,655	7,384	53	4,925	1,300	1,106							
Perfumery							16			16	10	3			3						
Paper		2,366		6,153		875	56,713	7,634	33,202	106,943	18,191	61,547	6,304	14,757	326	3,033	51	187	2,281	76	190
Pitch									123	123		58		56						9	
Peas									45	45		45									
Quebracho ex'rt			1,119							1,119		577	542								
Rags							9,408	5	303	9,716		9,421	25						270		
Rice				200		607	3,076	25	6,588	10,496	7,546	2,100	24	25	200	591		10			
Rosin						126			19,470	19,596	2,256	6,625	8,923	1,623		19					150
Rubber, mfg'd				174			93	165	5,865	6,297	189	3,841	1,644	313	84		10			216	
Rubber, raw			1						107	108	1	94	13								
Salt	410	1,000	3,379	10			1,395	16,414	1,171	23,779	4,981	1,214		15,480	997	2	5		1,100		
Saltpeter							345	70	36	451		381		70							
Sand							4,631	2	5	4,638		2,666			1,972						
Seeds:																					
Canary			135				12			147		147									
Cotton	50		1,105				5		730	1,890	1,710	170	5			5					
Grass			470	20			50		350	890		870		20							
Other			75	180			259	180	10	704		469		230		5					
Linseed			6,495							6,495		6,495									
Sunflower			917							917		917									
Shells									2,999	2,999		2,948									51
Silk							62	99	209	370	79	197	5	86	3						
Silversand							46,511	2,300	259	49,070	550	18,520									

Table III.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Atlantic to Pacific, During the Calendar Year, 1923.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—										
	Miscellaneous.	West Indies.	South America, east coast.	Canada, east coast.	Mexico, east coast.	Cristobal, C. Z.	Other European.	British Isles.	East coast, United States.	Totals.	South America, west coast.	United States, west coast.	Far East.	Australasia.	Canada, west coast.	Central America, west coast.	Balboa, C. Z.	Mexico, west coast.	North America, west coast.	Hawaii.	Miscellaneous.
Skins and hides	.....	.....	5,479	10	.....	.....	.....	10	78	5,577	.....	5,135	422	20	.....	.....	.....	.....	.....	.....	.....
Slag	.....	.....	.....	.....	.....	.....	4,236	9,052	2,003	15,291	.....	.....	.....	15,291	.....	.....	.....	.....	.....	.....	.....
Slate	.....	.....	.....	.....	.....	.....	.....	.....	957	957	.....	940	17	.....	.....	.....	.....	.....	.....	.....	.....
Soap	.....	.....	.....	.....	.....	161	148	467	3,147	3,923	635	3,089	3	150	.....	26	.....	.....	.....	20	.....
Soda, ash	.....	.....	.....	.....	.....	5	80	987	2,598	3,670	431	3,104	.....	.....	130	5	.....	.....	.....	.....	.....
Soda bicarbonate	.....	.....	.....	.....	.....	25	134	.....	580	739	19	442	218	.....	35	25	.....	.....	.....	.....	.....
Soda, caustic	.....	.....	.....	.....	.....	52	51	493	3,445	4,041	481	654	2,687	.....	48	43	9	.....	.....	40	79
Soda	.....	.....	.....	.....	.....	77	.....	282	2,271	2,630	387	1,163	721	10	272	77	.....	.....	.....	.....	.....
Spices	.....	.....	.....	.....	.....	.....	21	.....	.....	21	.....	21	.....	.....	.....	.....	.....	.....	.....	.....	.....
Starch	.....	.....	.....	.....	.....	.....	22	.....	3,465	3,487	13	2,113	1,215	114	.....	9	.....	.....	.....	23	.....
Sugar	.....	20,644	.....	2	.....	.....	30	.....	3,461	24,137	2,953	3,296	135	32	17,721	.....	.....	.....	.....	.....	.....
Sulphur	.....	.....	.....	.....	.....	.....	56	.....	141,203	141,259	56	75,432	2,024	51,957	11,040	.....	.....	.....	.....	750	.....
Syrup	.....	.....	.....	.....	.....	.....	.....	.....	1,821	1,821	26	1,661	.....	134	.....	.....	.....	.....	.....	.....	.....
Sodium sulphate	.....	.....	.....	.....	.....	.....	.....	47	.....	47	.....	.....	.....	47	.....	.....	.....	.....	.....	.....	.....
Tar	.....	.....	.....	.....	.....	.....	.....	.....	148	148	.....	148	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tea	.....	.....	.....	.....	.....	.....	177	1,166	154	1,497	969	343	26	34	115	10	.....	.....	.....	.....	.....
Tobacco	.....	87	202	1,438	.....	71	36	1,811	43,009	46,654	293	4,795	30,338	11,017	.....	211	.....	.....	.....	.....	.....
Turpentine	.....	.....	.....	.....	.....	.....	.....	.....	2,629	2,629	300	613	248	1,468	.....	.....	.....	.....	.....	.....	.....
Toys	.....	.....	.....	.....	.....	.....	65	.....	102	167	.....	167	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vegetables	.....	.....	.....	.....	.....	.....	228	.....	100	328	22	236	.....	.....	.....	.....	.....	.....	70	.....	.....
Waste	.....	.....	.....	.....	.....	.....	.....	.....	250	250	.....	250	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wax	.....	.....	.....	.....	.....	1,065	25	358	18,006	19,454	7,508	87	9,238	2,022	20	459	.....	120	.....	.....	.....
Wheat	.....	.....	.....	.....	.....	.....	133	.....	16	149	149	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wool	.....	.....	29	.....	.....	.....	240	690	624	1,583	890	683	10	.....	.....	.....	.....	.....	.....	.....	.....
Walnuts	.....	.....	.....	.....	.....	.....	110	10	.....	120	.....	120	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zinc oxide	.....	.....	.....	.....	.....	3	.....	.....	724	727	.....	697	.....	27	.....	3	.....	.....	.....	.....	.....

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Pacific to Atlantic, During the Calendar Year 1923.

PACIFIC TO ATLANTIC.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—									
	West coast, Mexico.	West coast, North America.	Hawaiian Islands.	West coast, Central America.	West coast, Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast, Canada.	West Indies.	East coast, South America.	East coast, Mexico.	East coast, United States,	Miscellaneous.
Agricultural impl'nts								428	114	542	161		110			20	251			
Albumen							105	13		118	118									
Alfalfa meal								272		272	252	20								
Algarobilla									1,137	1,137		662	475							
Arsenic							50	381	539		970	970								
Asphalt									409		409	315	47				47			
Automobiles					7	1	10	246	16		280	218	16	31	7		8			
Alcohol								100			100	100								
Auto accessories						15		81			96	81	15							
Asbestos								14			14	14								
Apricot kernels								127			127		127							
Aeroplanes								27			27	27								
Alum								33			33	33								
Balsam				29	1				6		36	12		8	16					
Bamboo							112	10			122	122								
Bark:																				
Cascara		22		50	41			422	23		558	257	246	49	6					
Peruvian				13				8	286		307	25	30	199	53					
Quillay				179				17	1,986		2,182	133	236	1,770	43					
Other				2		16			74		92	6	16	21	49					
Barley		750			5,855	27		224,077	29,242		259,951	210	232,484	27,240	6			11		
Beans	10,973				28	4,704	12,322	41,864	11,119		81,010	46,117	4,303	22,748	279	500	6,601	462		
Beeswax									90		90	86	4							
Borax		60						23,567	31,593		55,220	16,738	16,117	22,035	130		200			
Bran								357	5,236		5,593	500	2,397	2,671	25					
Bristles							89				89	89								
Bones								428			428	428								
Cocoa				1,519		347		97	26,360		28,323	13,090	147	8,180	6,603			272		31
Camphor							188	68			256	256								
Canned goods:																				
Fish		8,710	23	6	14,696		201	126,933			150,569	110,789	24,088	12,471	208	1,665	439	866	43	
Fruit		6,933	25,300	150	914		43	197,625	65		231,030	155,020	52,223	21,260	639		1,169	719		
Meat				41	410	648	29	404	96		1,628	161	856	611						
Milk					857			4,411			5,268	3,649	1,616		3					
Vegetables							2	17,634	311		17,947	16,109	572	295	49		467	455		
Other		1,650			1,310		6	20,253			23,219	18,704	3,555	910			10		40	

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Pacific to Atlantic, During the Calendar Year 1923.—Continued.

PACIFIC TO ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—									Total.	TONS OF CARGO TO—									
	West coast, Mexico.	West coast, North America.	Hawaiian Islands.	West coast, Cen. America.	West coast, Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.		East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast, Canada.	West Indies.	East coast, South America.	East coast, Mexico.	East coast, United States.	Miscellaneous.
Carbon, black								115		115	115									
Cassia							849	12		861	861									
Celete		60			28			1,851		1,939	1,717	222								
Cement								57	27	84	67	17								
Cereals									964	964		905		59						
Charcoal								884		884	884									
Chemicals				26			291	534	39	890	805	3	11	26				45		
Chinaware					13			122		135	127						8			
Coal					340	79		50	7	476	50	85	340	1						
Cocoa leaves				5					49	54	19			35						
Coconuts				1,015		10	2,100	134	143	3,402	2,312	10	1,000	15		65				
Coffee	26			53,764		183		937	34,717	89,627	20,820	111	15,835	51,026		1,734	101			
Cold storage:																				
Beef						16,998		28		17,026	706	16,320								
Butter				1	45	18,424		402	2	18,874	1,221	17,524	1	2	102	24				
Casein				44		3,144		203		3,391	2,264	234	51		842					
Cheese						15,660		89		15,749	89	15,660								
Eggs							6,514	989		7,503	7,503									
Mutton						42,141			409	42,550	1,338	40,803	409							
Lard						10		141	169	320	45	261		14						
Pork						63				63		63								
Tallow				5	113	7,912		2,371		10,401	3,000	7,285		16	100					
Other		370	97	27	2,401	11,278		4,010		18,183	2,186	14,933	1,037			27				
Copra						44,859	9,569	97		54,525	15,362	5,107	34,056							
Corn									1,463	1,463			1,462	1						
Cotton		10		623	70	95	3,568	11,051	41,948	57,365	20,960	28,899	4,018	3,488						
Cottonseed oil cake						100		3,689	16,518	20,307	2,022	14,537	3,748							
Calcium carbide			3							3	3									
Confectionery							400	9		409	409									
China clay								26		26	24						2			
Drugs							103	51		154	154									
Dyes				8				14		22	14			8						
Dyewoods				1,373				228		1,601	363		450	788						
Earthenware								503	1	504	503			1						
Eggs, dried					150		280	339		769	769									

Explosives								272	233	505	169	74		126			50	86			
Extracts								5		5	5										
Fertilizer								229		229	227			2							
Fireworks							1,491	14		1,505	1,505										
Flax				5		601			60	666	416	250									
Flour		3,371			4,123		150	43,247	5	50,896	15,196	27,059	7,822	236		208	375				
Fruit, dried		1,597			200	49		51,548	124	53,518	33,793	6,603	12,342	36	96	57	591				
Fruit, fresh		6,245			163	680		20,810	630	28,528	3,478	22,471	2,088	48		5	438				
Fuller's earth								456		456	456										
Fire clay								155	5	160	160										
General	39	16,609		2,729	24,994	29,775	59,609	451,212	72,611	657,599	485,337	76,897	72,725	7,686	10,171	3,357	1,205	53		168	
Gallstones							426			426	426										
Garlic									540	540	372			15		153					
Glassware						227		3		230		227		3							
Glue									87	87	85					2					
Glycerin						34		413		447	447										
Guana								80	13,889	13,960	9,660	3,100	1,200								
Gum kauri						4,386	69			4,455	2,984	471	25		975						
Gum, yucca						447				447	447										
Graphite							1,435			1,435	1,435										
Hair					15	1	196	102	2	316	315			1							
Hardwood	190			7,950	256			284	6	8,686	5,872	560	1,303	951							
Hats				21			488	3	252	764	602	5	8	119							
Hay		1,500					41	11,188	356	13,085	12,729			356							
Hemp						4,217	19,073	3,439	20	26,749	25,384	1,012	20	2	316	15					
Honey				78		72		450	914	1,514	315	486	696	17							
Hops								1,142		1,142	976		163	3							
Horns and hoofs				90	4	42		69	163	368	136	66	96	70							
Indigo				64					37	101	5	21	13	62							
Infusorial earth								499		499	52	204	103				140				
Ink								35		35							35				
Iodine				5					589	585	307	103	175								
Ivory nuts				1,149		102			23,198	24,449	11,576		6,944	5,876	53						
Jute						27		73		100		27		3			70				
Kapok							10	99	21	133	109			24							
Leather								70	6	76	70		6								
Linoleum					5		698	404		1,107	1,107										
Liquors				6	10	1		1,451	245	1,713	1,307	141	203	46		16					
Live stock				7					3	10		3		7							
Lumber		90,735	250	3,660	165,796	627	2,599	1,391,078	2,031	1,656,776	1,492,030	62,519	30,526	54	12,571	21,146	23,474	14,456			
Lime			28							28	28										
Manufactured goods:																					
Iron and steel				10	114	11	13	2,387	105	2,640	2,393	40	27	66	114						
Machinery					177	7	23	3,616	217	4,040	2,999	194	157	139		76	475				
Textiles				2	21	9	1,443	1,507	695	3,677	2,964	690	10	13							
Other							820	8,411	13	9,244	5,156	434	1,164	3				2,487			
Matches							140			140	140										
Metals:																					
Antimony						136	292		84	512	512										
Chrome						3,500				3,500	3,500										
Copper					4,605	1,564		130,774	176,416	313,359	222,834	13,770	43,221	33,384	150						
Gold and silver				10	3			509	166	679	564	48	31	36							

Table IV.—Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination of the Same, from Pacific to Atlantic, During the Calendar Year 1923.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—									
	West coast, Mexico.	West coast, North America.	Hawaiian Islands.	West coast, Central America.	West coast, Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast, Canada.	West Indies.	East coast, South America.	East coast, Mexico.	East coast, United States.	Miscellaneous.
Metals:—Contd.																				
Iron								24		24	24									
Lead					1,873	576		13,646	1,005	17,100	5,448	10,660	908	31			50	3		
Tin					50	151	1,472	50	12,289	14,012	3,049	8,936	2,026	1						
Zinc				25	2,402	5,996	150	2,962	39	11,574	941	9,308	1,325							
Other				44	80	1,169	1,237	665	5,350	8,545	5,559	1,678	646	662						
Milk, powdered						121		764	16	901	736	135	30							
Metal, scrap				2,710	39	107		2,071	614	5,541	4,711	296	524	10						
Malt								44		44	44									
Magazines								23		23	23									
Nitrates								30	1,814,491	1,814,521	795,787	74,562	826,551	29,875		13,773				73,973
Nuts							77	817	5	899	557	149	193							
Oats					1,080	492		25	12,816	14,413		14,109	283	21						
Oil:																				
Coconut						730	19,767	1,989		22,486	21,541	945								
Cottonseed									1,542	1,542		1,276		266						
Crude							18	8,300,800	289,384	8,590,202	7,598,491	53,413	72,891	37,064	124,949	80,523		622,871		
Eucalyptus				1		32				33	32				1					
Lubricating							486	60,489		60,975	36,076	24,898						1		
Refined				830			46	485,699	12,693	499,268	218,847	198,975	69,605	1,517			1	10,323		
Vegetable						7	12,506	142	131	12,786	12,655			131						
Wood							2,733	401		3,134	3,134									
Olive									78	78		78								
Cassia							30			30	30									
Camphor							7			7	7									
Whale								185	93	278	1	265		12						
Other				1	142	5	1,177	805	329	2,459	1,261	205	135	853	3			2		
Onions								296	376	672	97			75		500				
Ore:																				
Antimony						50	344		153	547	547									
Copper						243		10,462	94,787	105,492	90,890	3,955	2,544	8,103						
Gold and silver				55		300			4,924	5,279	3,000	730	597	952						
Iron						5,000			630,874	635,874	635,869	5								
Lead						2,056		25	4,543	6,624	317	3,336	2,971							
Magnesite								16,117	910	17,027	17,017		10							
Manganese								6,686	1,766	8,452	7,649	760	43							
Tin						19	175	10	33,060	33,264	3,862	27,658	1,744							

Ore:—continued.																					
Zinc					25			15	822	862	15		847								
Other				51		58		148	4,833	5,090	2,062	2,277	655	96							
Nickle									118	118	118										
Tungsten								45		45	30	15									
Chrome						6,812				6,812	500	6,312									
Onyx								23		23	23										
Paint					20			151		171	87	21				24	39				
Paper					770	3	45	4,489		5,307	4,971	3	76			213	41				
Peanuts							1,218	3,641		4,859	4,859										
Phosphates						61,250	750	82		62,082	127		61,205			750					
Porcelain							1,741	984		2,725	2,725										
Pulp, paper		1,900			4,765			625		7,290	6,246	1,041									
Plaster								110		110	110										
Paper, roofing								56		56			30				26				
Peas	8,394					193		411	332	9,330	103	332	8,685			210					
Potash								440		440	440										
Quicksilver								5		5	5										
Quebracho extract							387			387	387										
Rags						5		253		258	253	5									
Rope								40		40	40										
Rubber																					
Manufactured				19		10	6,797	1,741	790	9,360	9,034	19	20	119			177				
Raw							120	12	121	253	246		1	6							
Scrap								322	48	370	368			2							
Rye					5,708			265	384	6,357		1,215	5,112								
Rice				15	153	16,690	45,153	4,956	65	66,945	25,106	155	326	31		40,200					1,127
Salt								523	411	934	934										
Saltpeter									8,681	8,681			8,681								
Seeds:																					
Clover									348	348		348									
Cotton				70		46		2,667	9,896	12,679	100	9,267	3,096	216							
Flower								5		5		5									
Grass						577		219	364	1,160	709	300	30		121						
Hemp								59		59	59										
Millet							481	439		919	919										
Mustard							146	184	21	351	340	11									
Other						61	103	509	97	778	547	66	136	27	2						
Shells				73		942	62	95	35	1,178	606	79	387	60	30	16					
Silk					98		752	379	31	1,260	1,245			15							
Skins and hides	23	209		2,181	679	16,133	4,043	17,571	8,595	49,460	36,590	5,663	3,911	2,031	1,355						
Slate		5						151		156		26	130								
Soap								261	2,047	2,308	838	1,470									
Spices						5				5			5								
Sugar				2,419			73,284	97	172,885	254,683	120,963	89,845	34,797	9,078							
Syrup								238		238	238										
Soda								20	1,185	1,205	1,205										
Seeds:																					
Sesame							1,014			1,014	1,014										
Canary								1		1	1										
Sunflower								16		16	16										
Slag								54	410	464	464										

Table IV.—Classification of Cargo Passing through the Panama Canal, Showing Origin and Destination of the Same, from Pacific to Atlantic, During the Calendar Year 1923.—Continued.

(Figures represent tons of 2,240 pounds.)

	TONS OF CARGO FROM—										TONS OF CARGO TO—									
	West coast, Mexico.	West coast, North America.	Hawaiian Islands.	West coast, Central America.	West coast, Canada.	Australasia.	Far East.	West coast, United States.	West coast, South America.	Totals.	East coast, United States.	British Isles.	Other European.	Cristobal, C. Z.	East coast of Canada.	West Indies.	East coast, South America.	East coast, Mexico.	East coast, United States.	Miscellaneous.
Talc								2,824		2,824	2,824									
Tea				300	20		14,394	1,326		16,040	16,015			19			6			
Tobacco					9	43	293	1,295		1,640	1,564						76			
Toys								10		10	10									
Tartar									85	85		20	65							
Vegetables								698	118	816	561		22	5		228				
Waste							4	266		270	270									
Walnuts								165		165	36						129			
Wax								566	96	662	573	27		12			50			
Wheat		14,100			392,991	805		271,977	2,703	682,576	9,500	338,155	313,418	12,869		4,729	3,905			
Wool				51		48,094	4,457	16,165	11,865	80,632	44,743	31,916	1,555	509	1,909					
Zinc oxide					50					50		50								

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 17, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ares	Royal Netherlands W. I. Mail		May 11		417½
Cartago	United Fruit Co	May 11	May 11	223	429
Pastores	United Fruit Co	May 11	May 11	16	134
Urubamba	Peruvian Line		May 12		350
Santa Teresa	Grace Line	May 12	May 12	(1)	2
Lochkatrine	Pacific Steam Navigation Co	May 12	May 13	330	423
Sesostris	Kosmos Line	May 12	May 14	39½	(2)
Orita	Pacific Steam Navigation Co	May 13	May 13	(1)	76
Abangarez	United Fruit Co	May 13	May 14	477	(2)
Crynssen	Royal Netherlands W. I. Mail	May 13	May 14	41	5
Ulua	United Fruit Co	May 13	May 14	145	217
Illinois	French Line	May 13	May 14	86	52
Cristobal	Panama Railroad Steamship Line	May 13		3,487	
Salvador	Pacific Steam Navigation Co	May 14		1,005	
Flandre	French Line	May 14	May 17	83	537
Camden	United Fruit Co	May 14	May 14	8,911	6,600
Cartago	United Fruit Co	May 14	May 14	8	11
Carrillo	United Fruit Co	May 14	May 15	210	164
Sixaola	United Fruit Co	May 14	May 15	2	67
Indiana	French Line	May 15	May 16	½	(2)
Aconcagua	Chilean Line	May 15	May 16	(1)	320
Lake Flattery	Panama Railroad Steamship Line	May 17		281	
Crynssen	Royal Netherlands W. I. Mail	May 17	May 17	3	1,392
Loreto	Pacific Steam Navigation Co	May 17		400½	
Coronado	United Fruit Co	May 17	May 17	5	(2)
Oroya	Pacific Steam Navigation Co	May 17	May 17	190	2

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 17, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Colombia	Pacific Mail Steamship Co	May 11	May 11	34	1
Urubamba	Peruvian Line	May 12	May 13		152
Lisbon Maru	Nippon Yusen Kaisha	May 17	May 17	153	
Liberator	United States Shipping Board	May 17	May 17	119	

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 15, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.21
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.46
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.50
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 17, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Colombia	10	5.28	11	6.15	11	13.40	12	1.31	American	Pacific Mail Steamship Co	380.0	48.7	23.0	New York	San Francisco	General	3,298	6,015	4,281
Rochester [2]	6	8.50	11	6.30	11	13.52	....	....	American	U. S. Navy	380.6	64.9	27.6	New York	Balboa	Ballast		....	....
Baldhill [1]	9	6.38	11	7.05	11	14.34	11	15.38	American	Walker & Daly (S. B.)	416.9	56.2	18.6	Baytown	San Pedro	Ballast		6,728	4,692
Sutermeo	11	0.25	11	8.38	11	16.16	11	20.45	American	Transmarine Corporation	324.0	46.2	20.0	Port Newark	San Pedro	General	4,300	3,984	2,612
Italy Maru	11	6.10	11	10.03	11	17.02	11	18.25	Japanese	Kawasaki Kisen Kabushiki Kaisha	385.0	51.0	25.0	Norfolk	Otara	General	5,190	5,914	4,388
Miller County [1]	11	10.43	11	11.20	11	17.49	11	22.59	American	Sun Oil Co	431.0	59.2	19.0	Chester	San Pedro	Ballast		7,825	4,870
Antietam [1]	11	11.40	11	12.15	11	18.44	11	19.52	American	Charles Kurz & Co	435.6	56.2	19.6	New Orleans	Los Angeles	Ballast		7,426	5,094
Curlew [3]	....	....	11	6.15	11	13.33	12	0.32	American	U. S. Navy	....	....	....	Cristobal	Balboa	Ballast		....	....
Marere	11	14.45	12	6.15	12	14.01	12	15.02	American	Ore Steamship Co	550.3	72.2	22.6	Baltimore	Cruz Grande	Ballast	....	15,551	4,297
Hamburg Maru	11	20.58	12	6.25	12	14.40	12	18.15	Japanese	Osaka Shosen Kaisha	400.0	54.0	24.6	New York	Shanghai	(8)	5,987	6,091	4,301
Willpolo	11	23.10	12	7.05	12	15.13	12	20.06	American	William Line	387.0	52.2	19.0	Norfolk	Los Angeles	General	4,093	5,680	4,080
Lancaster	12	7.12	12	8.35	12	16.00	13	0.56	American	Argonaut Steamship Line	434.3	57.7	27.0	Baltimore	Seattle	General, steel	9,386	7,943	5,872
Urubamba	8	20.20	12	9.30	12	16.13	13	2.46	Peruvian	Peruvian Line	382.0	46.1	18.3	Cristobal	Callao	General	348	4,803	2,951
Sudbury	12	10.15	12	10.35	12	18.09	12	21.45	American	United American Line	384.8	51.0	23.0	Baltimore	Seattle	General	5,843	5,571	4,033
Antinous	12	6.05	12	12.22	12	19.20	12	20.52	French	Messageries Maritime Co	419.0	56.0	28.9	Dunkirk	Noumea	General	5,532	7,643	5,364
G. Harrison Smith	12	18.45	13	6.50	13	14.40	13	15.52	British	International Petroleum Co	550.6	72.0	25.0	New York	San Pedro	Ballast		15,476	10,751
Harry Luckenbach	13	2.10	13	7.45	13	16.02	13	16.58	American	Luckenbach Line	448.9	60.2	26.0	New York	San Pedro	General	7,030	9,262	6,853
Colorado	13	9.50	13	10.00	13	17.16	13	18.08	British	Ellerman, Wilson Line	433.0	58.0	22.0	New York	Yokohama	General	4,518	8,606	6,774
Tango	12	14.30	13	10.10	13	18.43	13	19.50	Norwegian	Skogland Line	181.2	30.1	11.6	Drammen	Antofagasta	(9)	350	840	518
Nordhavet	13	9.35	13	10.55	13	18.52	13	21.00	Danish	Peter Brown	329.0	45.0	22.0	Newport News	Iquique	Coal	4,446½	3,720	2,637
Lochkatrine [4]	12	4.05	13	12.30	13	19.30	14	0.16	British	Royal Mail Steam Packet Co	485.4	62.3	27.0	Rotterdam	Vancouver	General	8,720	10,802	7,595
Firmore	13	12.52	13	12.58	13	20.48	13	21.57	American	Ore Steamship Co	450.0	57.0	23.0	Baltimore	Cruz Grande	Ballast		7,847	5,185
Illinois	13	4.50	14	6.05	14	14.05	14	15.05	French	French Line	490.0	51.6	21.5	Havre	Vancouver	General	4,452	6,028	4,294
London Importer	13	20.40	14	7.15	14	15.03	14	21.48	British	Furness Withy & Co	450.4	58.0	17.0	Manchester	Vancouver	General	2,000	8,405	5,903
Navarino	14	5.33	14	8.20	14	16.16	14	17.17	British	Chile Steamship Co	400.0	52.0	20.0	New York	Antofagasta	General	2,800	5,770	4,182
Durango [1]	14	9.10	14	9.47	14	17.37	14	22.50	American	C. D. Mallory & Co	435.0	56.0	24.0	New York	San Pedro	Ballast	....	7,643	5,301
Llanquihue	14	6.45	14	13.15	14	21.16	14	22.15	Chilean	Braun Blanchard	360.0	43.0	24.3	Newcastle	Valparaiso	Coal and coke	4,269	3,884	2,596
O-2 [5]	....	....	14	6.35	14	14.01	14	15.05	American	U. S. Navy	172.4	18.3	....	Cristobal	Balboa	....	....	....	....
Pet 'O My Heart [6]	....	....	14	....	14	15.21	....	....	Panaman	A. DeLeon	....	....	....	Cristobal	Gatun Lake	....	....	1	1
Litchfield [7]	14	17.15	15	6.10	15	11.58	17	9.20	American	U. S. Navy	315.0	31.0	11.0	New York	San Diego	Ballast	....	....	....
Langton Hall	13	22.15	15	6.15	15	13.32	15	14.25	British	Hall Line	403.5	54.4	24.0	New York	Brisbane	General	5,179	7,340	5,554
Canadian Miller	14	15.12	15	7.15	15	14.38	15	15.31	British	Canadian Govt. Mer. Marine	400.3	52.0	21.0	Halifax	Adelaide	General	2,700	5,892	4,186
Lieut. David Putnam [6]	....	....	15	....	15	....	....	....	American	U. S. Army	....	....	....	Cristobal	Pedro Miguel	Towing barge	....	....	....

[1] Tanker. [2] Cruiser. [3] Tug. [4] Motor ship. [5] Sumbarine. [6] Launch. [7] Destroyer. [8] Oil, grease, wax, automobiles, steel, tin, and general. [9] Dynamite and explosives.

Toco [1]	14	23.45	15	7.32	15	15.45	15	18.25	British	Chile Steamship Co	440.0	56.0	27.0	Tampico	Tocopilla	Crude oil	9,739	7,693	4,831
Argonne [10]	14	22.55	15	8.25	15	16.15	17	12.30	American	U. S. Navy	436.9	58.2	22.0	New York	Manila	General	345	.....	.....
Jacob Luckenbach	15	9.15	15	9.35	15	17.10	15	18.15	American	Luckenbach Line	414.5	53.7	28.0	New Orleans	San Pedro	General	8,000	7,315	5,270
Robin Goodfellow	15	9.30	15	10.28	15	18.54	16	2.00	American	Seas Shipping Co	424.8	55.0	25.0	New York	San Pedro	General	7,292	7,473	5,536
Ruapehu	15	2.50	15	12.35	15	19.54	15	21.00	British	New Zealand Shipping Co	457.0	58.0	30.4	Liverpool	Auckland	General	7,456	9,079	6,798
H. C. Folger [1]	15	13.10	15	13.20	15	21.04	15	22.14	American	Atlantic Refining Co	435.0	56.0	18.0	Philadelphia	San Pedro	Ballast	.....	7,461	5,145
David McKelvy [1]	15	14.25	16	6.20	16	13.21	16	14.20	American	Tidewater Oil Co	430.0	59.2	19.6	New York	Los Angeles	Ballast	.....	7,629	5,393
Odenwald [11]	15	17.05	16	6.25	16	14.20	16	19.05	German	Knohr & Burchard	400.0	54.3	24.3	Hamburg	Corral	General	6,221	6,808	4,979
Mahia	15	22.40	16	7.22	16	14.40	16	15.55	British	Shaw, Savill & Albion	477.0	62.9	25.9	London	Auckland	General	5,200	11,026	7,912
Heffron	16	6.04	16	7.30	16	15.23	16	16.30	American	Tampa Interocean Co. (S. B.)	440.0	56.0	28.0	Mobile	Ilo	General	7,621	8,349	6,201
Agwimex [1]	16	6.35	16	8.35	16	15.51	16	16.52	American	International Shipping Co	480.0	66.0	23.0	Baltimore	San Pedro	Ballast	.....	9,394	6,306
West Jappa	16	8.20	16	9.22	16	17.24	16	21.15	American	Swanye & Hoyt (S. B.)	426.0	54.0	23.8	Buenos Aires	San Francisco	General	5,708	6,755	4,873
Floridian	16	3.55	16	10.52	16	18.16	16	19.30	American	American-Hawaiian Line	416.2	53.6	22.9	Philadelphia	San Pedro	General	5,934	7,273	5,105
Aconcagua	16	4 15	16	13 25	16	19 51	16	21.05	Chilean	Chilean Line	422.8	56.2	24.3	New York	Valparaiso	General	2,013	7,758	4,705
Victolite [1]	16	15.50	17	6.10	17	13.25	19	13.35	British	Imperial Oil Co	500.0	68.0	22.0	Charleston	Talara	Ballast	.....	11,049	7,732
Agwilake [1]	17	6.35	17	7.20	17	14.25	17	15.20	American	International Shipping Co	468.3	62.7	21.0	New York	San Pedro	Ballast	.....	9,802	6,957
Athenic	17	6.07	17	8.25	17	15.25	18	8.43	British	Shaw, Savill & Albion Co	500.0	63.0	26.10	London	Wellington	General	6,000	12,896	9,571
Charles R. McCormick	16	22.03	17	10.40	17	17.15	17	18 15	American	Charles R. McCormick S. S. Co	407.0	53.0	19.0	New York	San Pedro	General	3,229	7,032	5,167
Oroya	17	5.45	17	11.22	17	21.39	18	4.10	British	Pacific Steam Navigation Co	525.3	62.6	23.6	Liverpool	Valparaiso	General	1,925	13,133	9,064

[1] Tanker [10] Transport. [11] Motorship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

West Calera	10	16.40	11	6.19	11	14.30	11	20.53	American	Swayne & Hoyt	410.5	54.0	23.0	San Francisco	Buenos Aires	Lumber, general	5,007	6,617	4,931
Lydia	10	17.05	11	6.31	11	15.15	11	15.15	American	East Baltic Line	366.0	48.2	.....	Raymond	New York	Lumber, shingles	4,900	4,620	3,337
Cape Henlopen [1]	10	21.40	11	7.20	11	15.55	11	15.55	American	Cape Steamship Co	434.8	56.2	27.0	San Pedro	New York	Crude oil	10,000	7,425	5,202
Samuel Q. Brown [1]	11	9.45	11	10.37	11	18.43	11	22.53	American	Tidewater Oil Co	424.4	53.2	26.6	San Pedro	New York	Crude oil	9,750	7,333	5,246
Robert Luckenbach	11	14.05	11	14.44	11	21.30	11	23 20	American	Luckenbach Line	445.0	58.0	22.6	Portland	Boston	Lumber, general	8,000	8,695	6,375
Tuxpanoil [1]	11	15.20	12	6.25	12	14.25	12	14.25	American	McAllister Brothers	431.0	59.2	25 8	San Pedro	New York	Crude oil	9,500	7,862	5,049
Sesostris	11	15.55	12	7.07	12	15.45	14	14.45	German	Kosmos Line	365.1	50.2	16.0	Champerico	Hamburg	Coffee, timber	943	4,979	3,381
Chester Sun [1]	11	17 46	12	7.59	12	16.15	12	16.15	American	Sun Oil Co	429.3	59.2	27.0	San Pedro	Chester, Pa	Crude oil	11,098	7,684	5,249
Atto	12	6.15	12	8.47	12	17 10	12	20.05	German	Roland Line	360.6	51.0	23.0	Talcahuano	Loudon	(12)	5,556	4,805	3,400
Santa Teresa	12	8.20	12	10.18	12	17.15	12	20.40	American	Grace Line	360 2	51.6	26.6	Talcahuano	New York	General	4,780	5,726	4,086
Trontolite [1]	12	9.30	12	11.17	12	19.15	12	19.15	British	Imperial Oil Co	420.8	57.0	26.0	Talara, Peru	Bayonne, N. J.	Crude naphtha	8,348	7,240	4,713
Foldenfjord [1]	12	18.40	13	6 19	13	14.15	13	17.30	Norwegian	Anglo-Saxon Oil Co	430.4	59.0	26.6	San Pedro	Lands End	Gasoline	8,477	7,780	5,520
W. F. Burdell [1]	12	17.45	13	7.04	13	15.10	13	15.10	American	Pure Oil Steamship Co	435.0	56.0	27.0	San Pedro	Bayonne	(13)	9,075	7,434	5,093
Dakotan	13	1.15	13	7.49	13	96.35	13	20.00	American	American-Hawaiian Line	407.7	53.7	22.0	Seattle	Boston	General	4,587	7,166	5,058
Betterton [1]	13	4.57	13	9.27	13	18.20	13	23.50	American	Walker & Daly	431.0	59.2	25.4	San Pedro	New York	Crude oil	9,700	7,822	5,180
Orita	13	11.15	13	12.20	13	19.40	14	6.00	British	Pacific Steam Navigation Co	485.4	58.2	29.6	Coronel	Liverpool	General	6,092	9,936	6,561
Ocean Prince	13	21.30	14	6.07	14	14.25	14	15.50	British	Furness, Withy & Co., Ltd	410.3	52.3	24.10	Vancouver	Naples	Wheat in bulk	7,512	5,926	4,252
Benlawers	13	0.20	14	7.25	14	15.50	14	17.15	British	Wm. Thomson & Co	378.0	46.10	22.6	Portland	Queenstown	Wheat in bulk	5,196	4,246	3,068
Elder Branch	14	8.50	14	9.46	14	17.40	14	22.15	British	F. and W. Ritson	380.3	49.7	23.10	Corral	Liverpool	General	6,266	4,951	3,592
Dixie Arrow [1]	14	9.30	14	10.12	14	18.30	14	18.30	American	Standard Transportation Co	468.3	62.7	28.0	Los Angeles	New York	Crude oil	12,165	9,744	7,140
Salvador	14	7.45	14	10.57	14	18.40	.....	.....	British	Pacific Steam Navigation Co	225.0	35.4	16.9	Buenaventura	Cristobal	General	1,005	1,270	735

[1] Tanker.

[12] Corn, copper, ore, and general.

[13] California crude oil in bulk.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Loriga	14	7.35	14	14.22	14	21.35	14	22.40	British	Pacific Steam Navigation Co	496.0	54.2	25.6	Corral	Liverpool	General	6,867	7,331	5,091
Aladdin [1]	14	12.05	14	12.57	14	20.05	14	20.05	American	Standard Transportation Co	435.6	56.2	27.6	San Pedro	New York	Crude oil	9,795	7,408	5,112
Republic	14	12.25	14	14.30	14	23.29	14	23.20	American	Chile Steamship Co	345.1	49.1	24.0	Antofagasta	Wilmington	([14])	6,012	4,393	3,006
Sucubaco	14	13.00	15	6.13	15	13.40	15	13.49	American	Transmarine Corporation	324.0	46.2	22.9	Aberdeen	New York	([15])	3,497	3,984	2,612
Lucerie	14	14.15	15	7.07	15	16.05	15	17.00	British	Andrew Weir & Co	412.6	55.6	29.6	Iquique	Alexandria	Nitrate of soda	9,990	6,913	4,866
Jason	14	16.10	15	8.16	15	16.45	16	14.03	American	U. S. Navy	536.0	65.0	22.6	San Diego	Hampton R'ds	Ballast		11,365	6,346
Agwisea [1]	14	20.10	15	9.06	15	17.45	15	17.45	American	International Shipping Co	458.3	62.7	28.6	Los Angeles	New York	Crude oil	12,368	9,802	6,931
Imlay [1]	14	22.45	15	9.56	15	18.55	15	18.55	American	C. D. Mallory & Co., Inc	425.8	57.0	27.6	San Pedro	Baton Rouge	Crude oil	10,000	7,218	4,959
H. M. Storey [1]	15	4.15	15	11.16	15	20.10	15	20.10	American	Standard Oil Co. of Calif	500.0	68.2	29.6	Los Angeles	New York	Crude oil	15,176	11,224	7,849
Lime Branch	15	8.55	15	11.51	15	21.20	15	23.10	British	F. and W. Ritson	396.0	56.2	23.10	Corral	Liverpool	General	7,277	6,587	5,039
Indiana	15	9.45	15	13.09	15	21.40	15	22.55	French	Cie Gle Transatlantique	417.8	55.9	26.7	Seattle	Havre	Wheat, coffee	7,438	7,157	4,936
Monticello	15	11.25	15	14.10	15	22.43	15	22.43	American	United American Lines, Inc	488.6	58.0	26.6	Portland	New York	Lumber, hides	9,507	8,456	6,084
Putnam									American	U. S. Army				Pedro Miguel	Cristobal				
Miskianza [1]	16	9.00	16	9.54	16	17.50	16	20.55	American	Walker & Daly	425.0	57.3	26.6	San Pedro	New York	Crude oil	10,000	7,205	5,125
Baluchistan	16	9.25	16	10.32	16	19.05	16	22.10	British	Common Brothers	381.0	51.2	23.9	Vancouver	Antwerp	Wheat	6,552	5,293	3,933
Frank Lynch	16	15.40	17	6.26	17	14.08	17	14.08	American	W. J. Gray	252.0	43.5	18.6	Tacoma	New York	Lumber	1,509	2,283	1,369
Loreta	17	0.40	17	7.31	17	15.00	18	2.18	British	Pacific Steam Navigation Co	406.2	54.2	28.0	Corral	London	General	7,775	7,434	5,010
Sumaneo	17	0.30	17	8.03	17	15.35	17	15.35	American	Transmarine Corporation	324.0	46.2	21.0	Aberdeen	Newark	Lumber	3,370	3,984	2,612
Frogner	17	5.45	17	9.00	17	17.15	17	21.35	Norwegian	Fearnley & Eger	407.1	53.8	24.0	New Westm'er	Boston	Lumber	6,273	7,010	5,310
Munrio	17	8.20	17	9.49	17	17.55	17	17.55	American	Munson Line	333.6	48.2	21.6	Seattle	New York	Lumber	4,075	4,165	3,066

[1] Tanker. [14] Copper, nitrate of soda. [15] Lumber and auto accessories. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
May 11	La Isla	L. J. Vaccaro	La Ceiba.
May 11	Cartago	United Fruit Co	New Orleans and Habana.
May 11	Pastores	United Fruit Co	Port Limon.
May 13	Cristobal	Panama Railroad Steamship Line	New York and Haiti.
May 13	Ulua	United Fruit Co	New York and Habana.
May 13	Crynssen	Royal Netherlands W. I. Mail	Amsterdam via wayports.
May 13	Abangarez	United Fruit Co	New Orleans via Habana.
May 14	Cartago	United Fruit Co	Bocas del Toro.
May 14	Camden [1]	United Fruit Co	Houston

*DEPARTURES.

Date.	Vessel.	Line.	For—
May 11	Pastores	United Fruit Co	New York via Habana.
May 11	Cartago	United Fruit Co	Bocas del Toro.
May 13	St. Mihiel [16]	U. S. Army	New York via Charleston.
May 14	La Isla	L. J. Vacarro	Bluefields.
May 14	Crynssen	Royal Netherlands W. I. Mail	Port Limon.
May 14	Cartago	United Fruit Co	New Orleans via Habana.
May 14	Abangarez	United Fruit Co	New Orleans via wayports.
May 14	Ulua	United Fruit Co	Port Limon.
May 14	Camden	United Fruit Co	Port Limon.

[1] Tanker. [16] Transport. * Other than ships passing through the Canal.

(Continued on page 598, column 2.)

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4, of the tariff.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in nearly 10 years of operation.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, United Fruit Company. The Pacific Mail and United Fruit Company charge $6 for the trip, the others $10. The several services together afford about 4 transits of the Canal each way every week.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 596.

PORT OF CRISTOBAL—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
May 14	Carrillo	United Fruit Co.	New York via Kingston.
May 14	Flandre	French Line.	Bordeaux via wayports.
May 14	Sixaola	United Fruit Co.	Colombian ports.
May 17	Coronado	Elders & Fyffes, Ltd.	Port Limon.
May 17	Crynssen	Royal Netherlands W. I. Mail.	Port Limon.
May 6	W. J. Hanna	Standard Oil Co.	Campana, Argentine.
May 10	Sapelo	U. S. Navy.	San Pedro.
May 17	Almirante	Maurice Valencia.	Panama.

*DEPARTURES.

Date.	Vessel.	Line.	For—
May 15	Ulysses and Darien	Panama Railroad Steamship Line.	Norfolk.
May 15	Sixaola	United Fruit Co.	New York via Kingston.
May 15	Carrillo	United Fruit Co.	Colombian ports.
May 17	Coronado	Elders & Fyffes, Ltd.	Bristol via wayports.
May 17	Flandre	French Line.	Havre via wayports.
May 17	Crynssen	Royal Netherlands W. I. Mail.	Amsterdam via wayports.
May 11	W. J. Hanna	Standard Oil Co.	Talara.
May 13	Sapelo	U. S. Navy.	Los Angeles.
May 17	Almirante	Maurice Valencia.	Chame.

PORT OF BALBOA.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., May 28, 1924. No. 42.

All Northbound Traffic through Canal May 22 Destined New York.

All of the 9 ships which passed through the Canal from Pacific to Atlantic on May 22, 1924, cleared for New York. Four of these vessels were tankers carrying approximately 40,198 tons of crude oil, 4 had as the major portion of their cargoes, lumber, and one carried mostly nitrate and copper ore from South America.

Below are given the names of the vessels, Panama Canal net tonnage tons and character of cargo carried, and points of origin:

Vessel.	Panama Canal net tonnage.	Cargo tonnage.	Kind of cargo.	From—
Cape Ann [1]	5,216	10,000	Crude oil	Los Angeles, Calif.
Clement Smith [1]	5,532	10,000	Crude oil	Los Angeles, Calif.
D. G. Schofield [1]	6,013	10,898	Crude oil	Los Angeles, Calif.
Ipswich	4,614	7,252	Lumber and general	Portland, Oreg.
A. L. Kent	5,030	8,300	Lumber and general	Seattle, Wash.
Circinus	4,791	7,120	Lumber and manganese ore	Vancouver, B. C.
Teno	4,672	5,078	Nitrate, copper ore, general	Valparaiso, Chile.
Hampton Roads [1]	5,541	9,300	Crude oil	Los Angeles, Calif.
Catherine G. Sudden	1,506	2,500	Lumber	San Francisco Calif.
Totals	42,915	70,448		

[1] Indicates tank ships.

Full Cargo of Rice from East Indies to West Indies through Canal.

On May 19, 1924, the Norwegian steamship *Nordkyn* transited the Canal en route from Bankali, Miri, and Borneo, East Indian ports, to Santo Domingo, Haiti, Kingston, and Cuban ports, laden with 7,124 long tons of rice. The *Nordkyn* is owned and operated by Gorrison & Co. and chartered to the East Asiatic Co.

Service Rendered by Branch Hydrographic Office.

Upon his arrival at Balboa at 6.40 p. m. on May 12, 1924, the master of the Norwegian tanker *Foldenfjord*, bound from San Pedro to Lands End for orders, submitted a list of 147 hydrographic office publications and hydrographic office and coast survey charts which he wished, if possible, to obtain at the Canal. Included in the list were charts of the Indian Ocean, Red Sea, and Mediterranean, which are rarely called for at Panama. When the *Foldenfjord* reached Cristobal at 2.30 p. m. on the following day, May 13, all of the publications and charts required had been assembled by the branch hydrographic office and were delivered on board. The master was greatly pleased and conveyed his thanks for prompt and efficient service through the ship's agents at Cristobal.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

CANAL WORK IN APRIL.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of April, 1924:

BALBOA HEIGHTS, C. Z., May 15, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of April, 1924:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 403, averaging 13.43 per day. In addition to commercial vessels, there were 17 transits of small launches, on which tolls were paid which are not taken up in the commercial traffic, and 86 transits of Government vessels from which no tolls were collected, making the total transits of all kinds, 506. The daily average transits of all kinds was 16.87.

The Pacific Fleet of the United States Navy, which made up the greater part of the 86 transits of Government vessels during the month, was passed through the Canal from the Atlantic to the Pacific on April 3 to 8, 1924. During those 6 days, 163 vessels were passed through the locks without appreciable delay to commercial traffic.

Tolls for the month were $1,903,761.27 on the 403 commercial transits, and $80.95 on the 17 launches, making the total tolls collection for the month $1,903,842.22, or an average daily collection of $63,614.07. In addition to the above, $13.75 was collected on a supplemental bill against a vessel that transited the Canal on March 31.

The total number of craft of all kinds transiting the Canal during the month of April, 1924, as compared with the same month in 1923 and 1922, is shown in the following tabulation:

	April, 1924.	April, 1923.	April, 1922.
Commercial vessels	403	404	230
Noncommercial vessels, Army and Navy	86	20	14
Launches, under 20 tons measurement	17	16	9
Total vessels transiting the Canal	506	440	253

It will be noted that the commercial transits for April, 1924, were less than those of April, 1923. This is the first month since March, 1922, in which the commercial transits did not exceed those of the corresponding month in the preceding year.

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

Locks.	Northbound.	Southbound.	Total.
Gatun	6	8	14
Pedro Miguel	23	23	46
Miraflores	23	23	46

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of commercial vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by commercial vessels transiting the Canal each month from the beginning of the fiscal year 1924, to the end of April, 1924, as compared with the same months in the previous year:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922–3	1923–4	1922–23.	1923–24.	1922–23.	1923–24.	1922–23.	1923–24.
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
December	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January	352	476	1,610,692	2,400,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
February	326	418	1,529,547	2,108,879	1,563,278	2,243,616	1,423,954.21	1,964,155.59
March	409	429	1,988,192	2,136,079	1,940,928	2,272,472	1,827,718.44	[2] 1,997,138.83
April	404	403	2,007,690	2,053,171	2,187,145	2,158,721	1,878,938.15	1,903,761.27
Totals.	3,131	4,436	14,441,470	22,135,169	15,206,346	22,617,874	13,637,939.73	20,542,377.41

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

[2] Thirteen dollars and seventy-five cents added to previous figures for March, on account of tolls collected during April on a supplemental bill against a vessel which transited the Canal on March 31, 1924.

The increase in commercial traffic for the first 10 months of the current fiscal year, as compared with the preceding fiscal year, has been 41.36 per cent in number of vessels, 53.39 per cent in Panama Canal net tonnage, 48.74 in tons of cargo carried, and 50.63 in tolls.

Following is a summary of the commercial traffic in April, 1924, as compared with the corresponding months in 1923 and 1922, and with the average per month for the calendar year 1923:

	April, 1924.	April, 1923.	April, 1922.	Average per month for calendar year 1923.
Number of vessels	403	404	230	420
United States equivalent tonnage	1,634,644	1,634,457	771,932	1,665,195
Panama Canal net tonnage	2,053,171	2,007,690	974,833	2,061,453
Registered gross tonnage	2,625,612	2,579,551	1,219,338	2,638,175
Registered net tonnage	1,637,909	1,627,333	772,828	1,660,964
Tolls	$1,903,761.27	$1,878,938 15	$953,256.11	$1,913,903.18
Tons of cargo carried	2,158,721	2,187,145	1,046,047	2,096,712

The average daily number of transits, tolls, and cargo are shown in the following statement in comparative form:

	Average per day.			Average per day for calendar year 1923.
	April, 1924.	April, 1923.	April, 1922.	
Number of transits	13.43	13.5	7.7	13.8
Panama Canal net tonnage	68,439	66,923	32,494	57,774
Tolls	$63,458.71	$62,631.27	$31,775.20	$62,922.84
Tons of cargo carried	71.957	72,905	34,868	68,933

From the foregoing it will be seen that the average daily traffic in April, 1924, shows the following, in comparison with April, 1923; number of commercial transits, a decrease of 0.52 per cent; Panama Canal net tonnage, an increase of 2.26 per cent; tolls, an increase of 1.32 per cent; and tons of cargo carried, a decrease of 1.3 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and cargo per vessel transiting the Canal during the month of April, 1924, as compared with April, 1923, and April, 1922, are shown in the following tabulation:

	Average per vessel.		
	April, 1924.	April, 1923.	April, 1922.
United States equivalent net tonnage	4,056	4,045	3,356
Panama Canal net tonnage	5,095	4,970	4,238
Registered gross tonnage	5,515	6,385	5,301
Registered net tonnage	4,064	4,028	3,360
Tolls	$4,723.97	$4,650.76	$4,144.59
Tons of cargo (including vessels in ballast)	5,357	5,414	4,588
Tons of cargo (laden vessels only)	6,653	6,608	4,755

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement gives a summary of the intercoastal traffic through the Canal for the month of April for the past 4 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
April, 1921	19	92,033	91,484	11	68,368	59,306	33	160,491	153,790
April, 1922	24	114,283	137,207	26	131,193	118,662	50	245,476	255,869
April, 1923	95	534,294	238,636	90	516,214	876,228	185	1,050,508	1,114,864
April, 1924	85	492,358	200,865	83	455,967	716,486	168	948,325	917,351

From the above it will be noted that the intercoastal traffic for the month did not equal that of the corresponding month in the preceding year. This is the first month in which this has occurred since January, 1920.

UNITED STATES SHIPPING BOARD VESSELS.

Twenty vessels of the United States Shipping Board transited the Canal during the month of April, 1924; of these, 8 were employed in the United States intercoastal trade. Of the 20 vessels, 8 were tankships and 12 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels through the Canal during the month of April for the past 3 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
April, 1922	7	35,406	51,244	9	49,140	43,783	16	84,546	95,027
April, 1923	20	105,563	44,466	17	89,131	140,082	37	194,694	184,548
April, 1924	10	53,941	35,224	10	53,833	78,985	20	107,774	114,209

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of April, 1924, by principal geographical areas, as compared with April, 1923, and April, 1922; the figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	April, 1924.	April, 1923.	April, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	756,924	743,891	305,725
Europe (including British Isles)	214,093	183,803	138,836
Canada	12,422	13,551	10,195
East coast of Mexico	16,917	23,561	15,443
West Indies	10,336	10,087	21,771
Cristobal, C. Z	10,841	22,340	17,508
East coast of South America	15,065	20,426	11,210
Miscellaneous	.....	4,959	.....
Totals	1,036,598	1,022,618	520,688
Destination, Pacific-bound tonnage.			
West coast of United States	594,992	630,637	145,819
West coast of South America	168,933	156,237	121,973
Australasia	106,140	85,201	81,436
Far East	93,616	99,648	126,130
Canada, west coast	64,714	32,236	29,900
West coast of Mexico and Central America	8,203	18,659	15,430
Totals	1,036,598	1,022,618	520,688
Origin, Atlantic-bound tonnage.			
West coast of United States	557,938	603,664	188,029
West coast of South America	199,711	237,790	124,842
Australasia	71,311	49,359	75,485
Far East	40,515	21,844	31,969
Canada, west coast	138,673	50,968	24,083
West coast of Mexico and Central America	8,425	21,447	9,737
Totals	1,016,573	985,072	454,145
Destination, Atlantic-bound tonnage.			
East coast of United States	668,087	693,753	242,087
Europe (including British Isles)	307,342	172,627	169,493
East coast of Mexico and Central America	11,381	41,401	6,615
Cristobal, C. Z	21,914	37,357	20,266
East coast of South America	7,849	10,983	4,796
Miscellaneous	.....	28,951	10,888
Totals	1,016,573	985,072	454,145

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of April, 1924, was $1,903,761.27. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,282,492.40, a difference of $378,731.13. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$48,143.62	$48,175.93	$96,319.55
Chilean	1,257.65	1,256.00	2,513.65
Danish	2,031.55	1,253.55	3,285.10
Dutch	6,336.25	5,083.15	11,419.40
French	2,300.55	1,927.55	4,228.10
German	10,199.25	8,402.55	18,601.80
Italian	2,263.65	447.55	2,711.20
Japanese	4,461.75	3,173.15	7,634.90
Norwegian	.....	2,000.05	2,000.05
Panaman	[1] 2.85	247.05	244.20
Peruvian	4,673.95	4,665.00	9,338.95
Spanish	.....	841.55	841.55
Swedish	1,958.10	1,884.05	3,842.15
United States	74,588.68	141,161.85	215,750.53
Totals	158,212.15	220,518.98	378,731.13

[1] Indicates gain.

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Trade routes.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	$48,138.98	$113,370.50	$161,509.48
United States foreign trade	25,521.55	26,863.20	52,384.75
United States to Canal Zone trade	928.15	928.15	1,856.30
Totals	74,588.68	141,161.85	215,750.53

Of the additional $378,731.13 that would have been collected by using exclusively the Panama Canal rules of measurement, $20,654.40 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in April, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, April, 1924.
British	1.00	1.33	1.19
Chilean	.36	1.02	.69
Danish	1.74	1.68	1.72
Dutch	1.07	1.30	1.18
French	.72	1.38	1.03
German	1.02	1.44	1.23
Italian	.29	1.72	.61
Japanese	1.02	1.57	1.33
Norwegian	.....	1.98	1.98
Panaman	.....	.71	.71
Peruvian	.45	.42	.44
Spanish	.....	.08	.08
Swedish	1.54	1.24	1.39
United States	1.04	1.63	1.43
Totals, April, 1924	1.01	1.52	1.32
Totals, April, 1923	1.12	1.63	1.42
Totals, April, 1922	1.14	1.08	1 11

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes, is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
United States intercoastal trade	.41	1.57	.96
United States and South America	.32	1.99	1.32
United States and Europe	.80	1.57	1.23
United States and Far East	1.12	1.42	1.22

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Europe and South America	.77	1.28	.99
Europe and Canada	.88	1.57	1.43
Cristobal and South America	.24	.47	.38
United States and Australasia	1.00	.47	.90
United States and Canada	.98	1.50	1.09

COMMODITY STATISTICS.

Cargo passing through the Canal during the month of April, 1924, totaled 2,158,472 long tons. During April, 1923, the cargo was 2,187,145 long tons, which is 28,673 tons more than the cargo in April, 1924. This is the first month since March, 1922, in which the cargo tonnage has not shown an increase over the cargo tonnage for the same month in the preceding year. In March, 1922, there were 960,089 cargo tons through the Canal, as against 1,084,563 tons during March, 1921.

From the Atlantic to the Pacific the principal items in order were various manufactured goods, mineral oils, crude and refined, various metals, cement, coal and coke, slag, tobacco, and sulphur.

From the Pacific to the Atlantic the outstanding features are the decrease in shipments of crude oil, the total tonnage for April, 1924, being less than one-half that of the peak month of September, 1923, and the heavy tonnage of lumber and wheat. The shipments of lumber, 222,712 tons, and of wheat, 174,930 were the heaviest of record. The principal items through the Canal in this direction, in order, were mineral oils, crude and refined, lumber, wheat, various ores, and nitrates.

The following commodity statistics were compiled from cargo declarations submitted by masters of vessels at the time of transit, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	April, 1924.	April, 1923.	April, 1922.
Atlantic to Pacific.			
Ammonia	7,614	8,798	1,393
Automobiles	9,486	6,888	609
Canned goods	2,339	2,409	323
Cement	29,485	9,150	4,762
Chemicals	2,838	2,931	1,173
Coal and coke	18,500	23,450	56,414
Coffee	3,675	2,383	3,476
Cotton	7,115	16,756	2,412
Creosote	8,500	59	.....
Manufactured goods:			
Iron and steel	113,943	134,603	94,169
Machinery	12,973	10,619	6,179
Railroad material	16,236	15,705	24,090
Textiles	3,772	15,461	5,341
Other	2,623	11,360	5,939
Metals, various	30,270	27,078	12,854
Mineral oils:			
Crude petroleum	19,225	34,689	29,834
Lubricating	12,536	8,525	5,404
Refined	46,563	65,818	36,854
Phosphates	6,170	.....	503
Paper	4,238	3,970	1,448
Silver sand	925	3,700	4,720
Sugar	5,799	7,564	41,173
Sulphur	11,314	2,342	7,850
Tobacco	11,125	4,153	973
Other and general	235,765	234,958	214,549
Slag	12,000	.....	.....
Totals, Atlantic to Pacific	635,029	653,369	562,433
Pacific to Atlantic.			
Barley	14,603	13,121	19,360
Borax	838	1,711	1,004
Beans	4,001	6,164	1,622
Canned goods	32,692	11,857	16,306
Coffee	13,920	14,210	12,350
Cold storage	16,455	18,516	20,408
Cotton	1,641	1,977	633
Fruits, dried	19,542	1,088	1,301
Lumber	222,712	170,712	102,194
Metals, various	22,806	30,606	16,416
Nitrates	121,925	197,983	79,325

Commodity.	April, 1924.	April, 1923.	April, 1922.
Pacific to Atlantic—Continued.			
Mineral oils:			
Crude petroleum	454,992	744,800	10,177
Lubricating	10,008	10,058	40
Refined	103,443	67,329	.....
Ores, various	124,049	82,933	11,470
Sugar	25,094	19,555	23,568
Wheat	174,930	16,700	53,378
Wool	9,015	10,970	21,932
Other and general	153,817	92,290	68,144
Rice	18,967	5,315	20
Cocoa	3,473	3,756	1,279
Copra	6,039	8,432	3,629
Flour	5,480	2,621	17,549
Hemp	3,089	1,702	1,509
Totals	1,563,801	1,533,776	483,614

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of April, 1924, was published in THE PANAMA CANAL RECORD for May 7, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of April, 1924, as compared with the same month in the years 1923 and 1922:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	April, 1924.	April, 1923.	April, 1922.	April, 1924.	April, 1923.	April, 1922.
United States intercoastal	85	95	24	83	90	26
United States and South America	20	16	18	29	30	17
Europe and South America	14	14	9	11	18	11
United States and Far East	16	17	19	7	4	6
Europe and United States	14	12	6	15	4	7
Europe and Canada	7	5	1	21	4	4
Europe and Australasia	7	4	8	9	6	9
Mexico and South America	2	3	2	2	2	.....
Cristobal and South America	3	8	8	5	11	10
United States and Canada	6	.....	3	7	6	2
United States and Australasia	10	9	2	2	1	3
Miscellaneous	18	21	21	10	24	14
Totals	202	204	121	201	200	109
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	492,358	534,294	114,283	455,967	516,214	131,193
United States and South America	86,876	58,333	55,628	130,457	122,432	60,000
Europe and South America	66,593	59,177	38,702	51,179	82,274	46,008
United States and Far East	89,375	95,530	97,507	40,515	21,744	31,969
Europe and United States	69,035	61,952	31,536	84,363	24,264	39,681
Europe and Canada	29,199	27,237	6,334	108,079	22,649	19,019
Europe and Australasia	45,885	32,056	57,728	60,653	40,323	56,130
Mexico and South America	9,554	18,536	10,132	9,554	9,412	.....
Cristobal and South America	3,080	12,195	13,518	5,562	15,271	18,060
United States and Canada	34,270	.....	18,665	30,490	28,319	5,064
United States and Australasia	55,901	44,639	13,513	10,658	4,944	13,861
Miscellaneous	54,472	78,669	63,142	29,096	97,126	33,160
Totals	1,036,598	1,022,618	520,688	1,016,573	985,072	454,145
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	200,865	238,636	137,207	716,486	876,228	118,622
United States and South America	27,715	26,782	46,155	260,330	220,744	89,037
Europe and South America	51,539	34,344	28,887	65,500	119,547	56,119
United States and Far East	100,504	131,646	151,230	57,709	31,644	33,874
Europe and United States	55,455	25,823	29,054	132,818	40,205	55,368
Europe and Canada	25,757	25,885	3,900	169,819	35,270	29,370
Europe and Australasia	46,380	32,284	32,815	47,349	35,572	50,182
Mexico and South America	19,169	34,033	19,600	.....	.....	.....
Cristobal and South America	738	3,217	3,026	2,648	6,074	6,486
United States and Canada	25,779	.....	22,559	45,966	37,432	6,634
United States and Australasia	56,042	50,203	16,615	5,010	3,000	10,332
Miscellaneous	25,086	50,516	71,385	20,057	128,060	27,590
Totals	635,029	653,369	562,433	1,523,692	1,533,776	483,614

LATIN-AMERICAN TRAFFIC.

As compared with April, 1923, this traffic shows the following decreases: number of vessels, 29; Panama Canal net tonnage, 80,083; tolls collected, $85,820.66; tons of cargo carried, 106,849.

As compared with April, 1922, the following increases are shown: number of vessels, 9; Panama Canal net tonnage, 110,405; tolls collected, $104,056.67; tons of cargo carried, 139,574.

From Latin-American points the principal items were nitrates, various ores, crude oil, various metals, and barley, in the order named. To Latin-American points the principal shipments were various manufactured goods, crude oil, cement, coal and coke, various metals, and rice.

Nitrate shipments from South America totaled 121,925 tons, as compared with 115,194 tons in March, 1924, and 190,582 tons in February, 1924.

In the following tabulations are shown the tonnage, tolls, and cargo of all vessels routed to or from Latin-America, segregated by nationality and direction, together with the totals in each direction as compared with the month of April in 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	17	46,881	55,372	77,073	47,152	$52,948.28	46,537
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	1,657
Danish	1	2,256	3,468	3,718	2,307	2,496.96	.....
Dutch	2	7,852	12,459	12,688	7,706	9,815.00	10,407
French	2	7,964	8,533	11,699	7,432	9,783.10	3,103
German	4	12,027	17,570	20,090	12,058	15,033.75	16,933
Italian	2	6,700	8,283	11,623	6,951	8,375.00	2,192
Japanese	1	3,684	4,241	5,850	3,642	4,605.00	2,755
Norwegian	1	4,105	4,730	6,583	4,119	3,405.60	.....
Panaman	2	2,210	2,504	3,404	2,163	1,805.73	.....
Peruvian	4	5,708	9,825	15,919	8,359	7,116.05	4,449
United States	18	65,825	78,504	105,184	65,895	64,012.08	32,983
Totals, April, 1924	55	168,691	210,161	281,141	171,760	183,745.30	121,016
Totals, April, 1923	60	174,440	218,404	286,803	175,819	202,893.29	138,830
Totals, April, 1922	54	147,213	184,541	238,391	149,176	178,585.16	166,630
Pacific to Atlantic.							
British	18	71,092	82,884	115,086	71,174	84,738.68	104,943
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	4,778
Colombian	1	67	77	153	85	55.44	.....
Danish	2	3,777	4,919	6,206	3,764	4,721.25	8,279
Dutch	1	2,746	4,393	4,368	2,726	3,432.50	3,194
French	1	3,566	4,081	5,681	3,600	4,457.50	5,925
German	5	16,568	22,694	27,039	16,593	20,710.00	32,980
Italian	1	3,097	3,599	5,376	3,082	3,871.25	6,200
Japanese	2	8,683	9,128	11,730	8,526	10,692.60	16,747
Norwegian	3	13,419	14,682	20,207	13,474	16,527.80	30,220
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,743
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	3,254
Spanish	1	3,017	3,844	5,205	3,326	3,771.25	265
United States	16	51,706	60,529	86,431	52,022	64,426.95	130,007
Totals, April, 1924	56	187,121	225,744	207,024	190,542	229,133.87	348,535
Totals, April, 1923	80	240,334	297,584	391,696	239,941	295,806.61	437,570
Totals, April, 1922	48	106,178	140,959	184,303	112,161	130,237.44	163,347

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up approximately 57.5 per cent of the total commercial transits of the Canal during April, 1924; comprised about 61.1 per cent of the Panama Canal net tonnage, and carried approximately 60 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in April,

1924, classified according to nationality of vessels, by directions, and the combined traffic in both directions, together with the totals for April, 1923 and 1924:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	50	182,225	233,211	292,719	181,777	$212,050.46	197,283
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	1,657
Danish	3	9,649	12,862	15,544	9,747	11,738.21	16,342
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
Dutch	3	12,715	18,525	20,343	12,505	15,893.75	19,745
French	4	15,670	17,882	21,834	13,620	19,229.85	12,895
German	6	19,911	29,190	33,148	19,901	24,888.75	29,906
Italian	3	10,047	12,352	17,111	10,227	12,558.75	3,613
Japanese	6	24,226	28,795	36,405	23,576	30,116.25	29,230
Norwegian	2	9,342	10,250	13,860	9,173	7,380.00	.....
Panaman	2	2,210	2,504	3,404	2,163	1,805.73	.....
Peruvian	4	5,708	9,825	15,919	8,359	7,116.05	4,449
Swedish	1	2,286	4,013	3,764	2,852	2,857.50	6,165
United States	116	516,379	644,601	827,245	515,872	536,142.92	313,744
Totals, April, 1924	202	819,360	1,036,598	1,317,594	818,921	891,826.49	635,029
Totals, April, 1923	204	828,410	1,022,618	1,306,995	823,665	884,124.27	653,369
Totals, April, 1922	121	409,406	520,688	650,055	410,266	505,219.46	562,433
Pacific to Atlantic.							
British	50	208,751	255,692	334,645	210,070	256,759.43	326,621
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	4,778
Colombian	1	67	77	153	85	55.44	.....
Danish	2	3,777	4,919	6,206	3,764	4,721.25	8,279
Dutch	3	13,369	18,072	21,357	13,330	16,711.25	23,575
French	3	13,865	16,049	22,216	13,359	17,331.25	22,194
German	6	21,477	29,374	35,155	21,480	26,846.25	42,354
Italian	1	3,097	3,599	5,376	3,082	3,871.25	6,200
Japanese	8	34,592	38,255	48,683	33,868	42,732.85	60,101
Norwegian	4	16,422	18,568	25,101	16,528	20,281.55	36,720
Panaman	1	2,163	2,459	3,404	2,163	2,703.75	1,743
Peruvian	3	3,708	7,750	12,325	6,031	4,635.00	3,254
Spanish	1	3,017	3,844	5,205	3,326	3,771.25	265
Swedish	1	2,303	3,969	3,802	2,839	2,878.75	4,907
United States	116	485,164	609,241	777,080	485,087	604,245.51	982,701
Totals, April, 1924	201	815,284	1,016,573	1,308,018	818,988	1,011,934.78	1,523,692
Totals, April, 1923	200	806,047	985,072	1,272,556	803,668	994,813.88	1,533,776
Totals, April, 1922	109	362,526	454,145	569,283	362,562	447,936.65	485,614
Combined traffic.							
British	100	390,976	488,903	627,364	391,847	468,809.89	523,904
Chilean	2	6,991	9,377	14,620	7,952	8,738.75	6,435
Colombian	1	67	77	153	85	55.44	.....
Danish	5	13,426	17,781	21,750	13,511	16,459.46	24,621
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
Dutch	6	26,084	36,597	41,700	25,835	32,605.00	43,320
French	7	29,535	33,931	44,050	26,979	36,561.10	35,089
German	12	41,388	58,564	68,303	41,381	51,735.00	72,260
Italian	4	13,144	15,951	22,487	13,309	16,430.00	9,813
Japanese	14	58,818	67,050	85,088	57,444	72,849.10	89,331
Norwegian	6	25,764	28,818	38,961	25,701	27,661.55	36,720
Panaman	3	4,373	4,963	6,808	4,326	4,509.48	1,743
Peruvian	7	9,416	17,575	28,244	14,390	11,751.05	7,703
Spanish	1	3,017	3,844	5,205	3,326	3,771.25	265
Swedish	2	4,589	7,982	7,566	5,691	5,736.25	11,072
United States	232	1,001,543	1,253,842	1,604,325	1,000,959	1,140,388.43	1,296,445
Totals, April, 1924	403	1,634,644	2,053,171	2,625,612	1,637,909	1,903,761.27	2,158,721
Totals, April, 1923	404	1,634,457	2,007,690	2,579,551	1,627,333	1,878,938.15	2,187,145
Totals, April, 1922	230	771,932	974,833	1,219,338	772,828	953,256.11	1,046,047

VESSELS WITHOUT CARGO.

The number of vessels transiting the Canal in ballast is shown in the following tabulation, the vessels being grouped according to nationality:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
British	7	36,824	$26,670.24	2	9,554	$6,878.88
Danzig	1	7,916	5,699.52	.....	.....	.....
Norwegian	1	5,520	3,974.40	.....	.....	.....
United States	52	316,109	228,312.99	.....	.....	.....
General cargo ships:						
British	3	4,410	3,179.82	1	104	79.50
Colombian	.....	.....	.....	1	77	55.44
Danish	1	3,468	2,496.96	.....	.....	.....
Norwegian	1	4,730	3,405.60	.....	.....	.....
Panaman	2	2,504	1,805.73	.....	.....	.....
United States	5	24,076	17,443.68	2	5,473	3,940.56
Totals	73	405,557	292,988.94	6	15,208	10,954.38

CLASSIFICATION OF VESSELS.

A further classification of commercial vessels passing through the Canal during the month of April, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	5	26,341	$27,387.50	50	306,281	$317,144.75
Ballast	61	366,369	264,657.15	2	9,554	6,878.88
General cargo ships:						
Laden	124	604,700	571,450.05	145	695,084	683,835.65
Ballast	12	39,188	28,331.79	4	5,654	4,075.50
Totals	202	1,036,598	891,826.49	201	1,016,573	1,011,934.78
Steamers	191	997,175	855,487.72	191	983,871	982,545.79
Motor ships	9	39,306	36,224.77	7	32,286	29,057.94
Motor schooners	2	117	114.00	3	416	331.05
Totals	202	1,036,598	891,826.49	201	1,016,573	1,011,934.78

Of the 403 steam vessels, 302 were oil burners, 100 coal burners, and one burned either coal or oil.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of April, 1924. If tolls has been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Tonnage.	Tolls.	No. of ships.	Tonnage.	Tolls.
U. S. Naval vessels:						
Battleships	9	[1] 293,000	$146,500.00	.....	.....	.....
Cruisers	2	[1] 22,000	11,000.00	.....	.....	.....
Destroyers	29	[1] 63,700	31,850.00	.....	.....	.....
Destroyer tenders	2	[1] 21,225	10,612.50	.....	.....	.....
Collier	1	[1] 6,320	7,584.00	1	[2] 6,320	$7,584.00
Hospital ship	1	[2] 3,963	4,755.60	.....	.....	.....
Launch	1	[1] 30	15.00	.....	.....	.....
Mine sweeper	1	[1] 6,000	3,000.00	.....	.....	.....
Repair ships	2	[1] 25,500	12,750.00	.....	.....	.....
Submarines	12	[1] 9,604	4,802.00	2	[1] 990	495.00
Sub tenders	3	[1] 16,908	8,454.00	1	[1] 9,000	4,500.00
Supply ships	5	[2] 25,149	30,178.80	1	[2] 5,270	6,324.00
Tug	.....	.....	.....	1	[1] 1,000	500.00
U. S. Army vessels:						
Launches	2	[1] 70	35.00	.....	.....	.....
Mine planter	1	[1] 1,208	604.00	1	[1] 1,208	604.00
Transports	2	[3] 5,928	7,410.00	.....	.....	.....
Totals	73	500,605	279,550.90	7	23,788	20,007.00

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls, carried cargo as follows:

Directions.	Tons.
Atlantic to Pacific	17,695
Pacific to Atlantic	1,820
Totals	19,515

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls, are excluded from the statements concerning commercial traffic:

Direction.	Number.	Tonnage.	Tolls.
Atlantic to Pacific	5	32	$30.60
Pacific to Atlantic	12	49	50.35
Totals	17	81	80.95

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of April, 1924, are shown in the following tabulations:

	Cristobal.	Balboa.	Totals.
Local cargo arriving...tons..	50,211	45,856	96,067
Local cargo shipped...tons..	7,333	241	7,574
Transit cargo arriving...tons..	2,155,225	2,154,421	4,309,646
Transit cargo clearing...tons..	2,158,413	2,154,421	4,312,834
Cargo received for transshipment...tons..	26,876	2	26,878
Cargo transshipped...tons..	29,821	23	29,844
Vessels supplied with bunker coal:			
Army and Navy vessels	6	1	7
Commercial, other than Panama Railroad	47	7	54
Total vessels supplied with coal	53	8	61
Coal supplied to above vessels:			
Army and Navy vessels...tons..	159	19	178
Commercial, other than Panama Railroad...tons..	18,124	82	18,206
Total coal supplied to vessels...tons..	18,283	101	18,384
Coal issues, miscellaneous:			
Panama Canal departments...tons..	166	3	169
Panama Railroad Co...tons..	21	.....	21
U. S. Army, excepting vessels...tons..	400	.....	400
Individuals and companies...tons..	301	.....	301
Totals...tons..	19,171	[1] 104	19,275
Total issues from Panama Canal deposits:			
April, 1924...tons..	19,171	[1] 104	19,275
April, 1923...tons..	18,812	776	19,588
April, 1922...tons..	19,342	7,345	26,687
Coal on hand, May 1, 1924...tons..	88,967	.....	88,967
Coal on hand, April 1, 1924...tons..	100,911	.....	100,911
Coal received during the month...tons..	7,227	[1] 104	7,331
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments...bbls..	4,169.70	19,549.79	23,719.49
Panama Railroad Co...bbls..	1,314.45	509.50	1,823.95
Army and Navy...bbls..	520.80	2,305.93	2,826.73
Total issues and sales...bbls..	6,004.95	22,365.22	28,370.17
Fuel oil received during April, 1924...bbls..	.....	[2] 20.19	[2] 20.19
Fuel oil on hand, May 1, 1924...bbls..	14,343.38	49,593.77	63,937.15
Diesel oil sold during April, 1924...bbls..	1,074.57	[3] 30.19	1,104.76
Diesel oil on hand, May 1, 1924...bbls..	39,838.13	575.42	40,413.55
Oil pumped for individuals and companies...bbls..	591,467.58	498,843.81	1,090,311.39
Miscellaneous transfers...bbls..	.....	1,197.32	1,197.32
Gasoline pumped for Panama Canal...bbls..	908.12	4,617.60	5,525.72
Gasoline pumped for individuals and companies...bbls..	.....	2,651.94	2,651.94
Total gasoline and fuel oil handled...bbls..	599,455.22	529,706.08	1,129,161.30

[1] Borrowed from U. S. Navy at Balboa and returned at Cristobal. [2] Transferred from diesel oil to fuel oil stock.
[3] Includes 20.19 barrels transferred to fuel oil stock.

	Cristobal.	Balboa.	Totals.
Admeasurement of vessels:			
U. S. equivalent certificates issued or made	16	5	21
Measured for Panama Canal net tonnage	4	1	5
Remeasured for Panama Canal net tonnage	14	4	18
Panama Canal net tonnage corrected	8	2	10
U. S. equivalent tonnage corrected	14	6	20
Services of harbor equipment:			
Tugs, total operating hours	416	278½	694½
Launches, total operating hours	1,257	1,424	2,681
Revenues from tug service, pilotage, etc.:			
Tug revenue	$12,686.25	$8,680.00	$21,336.25
Pilotage	15,169.00	6,354.00	21,523.00
Seamen	7,500.00	8,280.00	15,780.00
Launch service	1,596.00	2,905.00	4,501.00
Ships measured	170.00	50.00	220.00
Wharfage	13,771.07	3,999.43	17,770.50
Miscellaneous cash collections	1,368.90	827.00	2,195.90
Vessels repaired at Panama Canal shops:			
Commercial	31	24	55
U. S. Army and Navy	7	13	20
Canal equipment	5	15	20
Vessels dry docked:			
Commercial	2	1	3
Panama Canal equipment	2	3	5
U. S. Army and Navy	.....	2	2
Clearances issued	259	278	537
Bills of health issued	267	278	545

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	500	3,484,637	2,362,789	489	3,199,029	2,193,754
Vessels entering port but not transiting Canal	54	307,523	179,615	9	33,311	20,768
Vessels transiting Canal and handling passengers and cargo at terminals	75	457,656	282,248	90	555,246	341,522
Ships clearing.						
All vessels, including those transiting Canal	498	3,491,544	2,367,633	489	3,208,253	2,197,806
Vessels entering port but not transiting Canal	54	313,382	183,752	10	32,429	21,454
Vessels transiting Canal and handling passengers and cargo at terminals	77	464,122	286,550	88	553,965	340,768

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	933	681	1,614	23	51	74
From Pacific ports	143	96	239	125	127	252
Total disembarking	1,076	777	1,853	148	178	326
Embarking:						
For Atlantic ports	1,130	671	1,801	46	70	116
For Pacific ports	177	115	292	66	48	114
Total embarking	1,307	786	2,093	112	118	230
Remaining on board vessels:						
From Atlantic to Pacific ports	683	2,664	3,347	422	2,743	3,165
From Pacific to Atlantic ports	1,158	1,645	2,803	1,380	1,746	3,126
From Atlantic to Atlantic ports	524	62	586	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	106	177	283
Total remaining on board	2,365	4,371	6,736	1,908	4,666	6,574
Total arriving	3,441	5,148	8,589	2,056	4,844	6,900
Total departing	3,672	5,157	8,829	2,020	4,784	6,804

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of April, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$141.39	$3,158.13	$6,172.82	$73.72	$2,616.93	$12,162.99
Panama Railroad vessels	24.30	25.10	1,912.24	748.36	411.44	3,121.44
Other commercial vessels	408.90	6,519 08	13,770.16	891.66	1,267.35	23,857.15
Total sales, April, 1924	574.59	9,702.31	21,855.22	1,713.74	4,295 72	39,141.58
Total sales, April, 1923	1,248.19	6,075.01	14,917.01	.....	2,358 77	24,598.98
Total sales, April, 1922	1,545.13	4,140.21	21,009.23	.....	1,710.27	28,404.84
Sales at Balboa to:						
U. S. Government vessels	841.40	10,680.47	28,890.81	1,008.30	3,843.45	45,264.43
Commercial vessels other than Panama Railroad	447.95	1,546.65	7,599.91	107.22	4,979.71	14,681.44
Total sales, April, 1924	1.289.35	12,227.12	36,490.72	1,115.52	8,823.16	59,945.87
Total sales, April, 1923	942.35	2,954.62	17,428.53	593.47	2,924.61	24,843.58
Total sales, April, 1922	656.33	2,700.85	15,023.45	1,013.73	794.70	20,189.06

The aggregate sales to government vessels during the month were $57,427.42, to Panama Railroad vessels $3,121.44, and to other commercial vessels, $38,538.59; making a total of sales to all vessels of $99,087.45.

LOCK OPERATIONS.

The following tabulations show the number of lockages, number of vessels passing through the locks, and the consumption of water for lockages, during the month of April, 1924, as compared with the corresponding month in 1923 and 1922:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	April, 1924.	April, 1923.	April, 1922.
Gatun	195	196	391	4	30	34	425	397	235
Pedro Miguel	197	198	395	5	42	47	442	435	261
Miraflores	197	198	395	6	40	46	441	127	248
	Number of vessels put through locks.								
Gatun	214	214	428	21	85	106	534	456	266
Pedro Miguel	206	206	412	34	98	132	544	503	300
Miraflores	206	206	412	37	101	138	550	483	303

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	92	86	92
Panama Canal equipment	14	46	46

The total consumption of water for lockages, maintenance, and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,389,860,000	1,048,350,000	1,010,420,000
Leakage	20,000,000	10,330,000	20,000,000
Maintenance	.....	4,970,000	.....

During the dry season, which ended about April 20, some efforts were made to economize in the use of water in the operation of the locks and the generation of electricity by the use of the shorter lock chambers for ships under 450 feet in length, tandem lockages, crossfilling, and by transferring approximately 90 per cent of the

power load from the Gatun hydroelectric plant to the oil-burning steam generating plant at Miraflores between January 2, and March 10, 1924.

The lowest level to which Gatun Lake fell was 83.93, on April 20. On April 22, the lake began to rise and mandatory crossfilling and short lockages were discontinued.

The overhaul of the locks at Gutun, previously reported, restricted the use of the intermediate valves, prevented crossfilling, and hindered any great saving of water at that end of the Canal. Nevertheless, by employing all feasible devices from about February 12, and with increasing care as the season advanced, the use of water for lockages was reduced from 81.6 cubic feet per second per vessel per diem in January, to 76.5 cubic feet per second in February, and to 60 cubic feet per second in March. In the wet-season months of July and August, 1923, when no efforts were made to save water, the consumption for lockages exceeded 85 cubic feet per second.

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of April, 1924, are shown in comparative form:

Rainfall for month.	April, 1924.	April, 1923.	April—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	2.64	.64	7.70	.06	3.32
Central section	6.58	.53	9.12	.27	3.74
Atlantic section	12.80	2.28	12.83	1.18	5.75
Maximum recorded on any one day	4.80	1.05	[1] 12.25	.....	.....
Gatun Lake watershed	9.46	1.38	12.00	.87	4.49
Chagres River watershed above Alhajuela	7.64	2.37	16.06	.51	4.48
Maximum recorded for month at any one point	17.80	5.93	21.73	.....	.....
Minimum recorded for month at any one point	1.51	.00	.....	.00	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	1,175	558	3,140	304	1,026
Maximum momentary discharge for the month	16,528	1,245	[2] 27,085	.....	.....
Gatun Lake watershed, total yield	3,044	676	6,263	328	1,946
Gatun Lake watershed, net yield	2,303	−185	5,400	−706	1,196
Draft on Gatun Lake for lockages and power	2,275	2,371	2,371	[3] 1,019	[3] 1,784

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (Note—Extreme outlying stations in the Republic of Panama not included in this report.) [2] April 3, 1915. [3] Not including April, 1914.

SEISMOLOGY.

Four seismic tremors were recorded at Balboa Heights, occurring on the 1st, 14th, and 21st of the month. Two tremors were recorded on the 14th.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., as compared with the corresponding month in 1923, and 1922, are shown in the following tabulation:

Item.	April, 1924.	April, 1923.	April, 1922.
Gross output, KWH:			
Gatun hydroelectric station	4,620,400	4,324,900	4,471,000
Miraflores steam plant	114,370	200	250
Power distributed to consumers.....KWH..	4,094,674	3,757,755	3,743,444
Loss of power in plants, accessories, transmission, and transformers.....KWH..	640,096	567,345	727,806
Per cent of loss of power to gross output	13.51	13.11	16.27
Water consumption.....cubic feet..	3,458,310,044	3,305,507,335	3,589,299,000
Oil consumption.....barrels..	1,740.70	1,050	2,009

Thirty-two work orders covering electrical installations and repairs on 25 vessels were completed during the month, as well as the usual operation, maintenance, and repair work.

There were 279 work orders issued during the month for work performed by the different sections of the Electrical Division, as compared with 236 work orders issued during March.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month, miscellaneous repairs were made on 43 vessels at Cristobal, and 52 at Balboa. Of these 4 were in dry dock at Cristobal and 7 at Balboa. The more important repair work during the month included the following:

The renewing of rotten planking, calking, and cementing of the entire bottom of the hull of the schooner *Irene S. Wilkinson.*

Leaky rivets were renewed and welded, also cracks welded in 6 furnaces of the U. S. S. *Sapelo*, together with rebricking 6 furnaces, installing two Panama Canal closed chocks, and repairing feed pumps and reversing engine.

The steamship *Westwego* was placed in dry dock to repair damage from collision with approach wall of locks. The stem was removed, straightened, and replaced, and damaged plates and frames renewed or faired as required.

New propeller shaft was forged for the tug *Cocoli*, and installed in the dry dock. The dredge *Gamboa* was dry-docked and the fitting of stern pontoons begun for the purpose of giving her additional watertight subdivisions as well as allowing of a deeper stern fender which will prevent overriding of scows moored astern.

The casings of both high pressure and low pressure turbines were raised on the steamship *Bethelridge*, high power motor removed to shop and repaired, and extensive repairs made to auxiliaries. Turbine casings were lifted on the steamship *Steelore*, all boilers were opened up, cleaned, tubes rerolled throughout, leaky seams and stays recalked, and repairs made to auxiliary machinery.

Installation of new roofs on the foundry, forge shop, and sand house was completed.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	April, 1924.			March, 1924.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	12	456	27,056½	5	489	19,452
Steel	2	332	76,640	3	345	60,820
Nonferrous	7	1,111	16,123½	4	486	12,245¾

There were 587 job orders on hand at the beginning of the month, 640 were authorized during the month, and 665 completed, leaving 562 on hand at the close of the month.

There were 361 standing orders on hand at the beginning of the month, 4 were authorized during the month and one completed, leaving 364 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The output of the three filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	April, 1924.	April, 1923.	April, 1922.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	619,456,500	708,093,250	658,810,000
Filtration plants	365,229,000	417,145,000	380,175,000
Water consumed by Panama	91,625,000	91,143,000	78,703,000
Water consumed by Colon	52,344,000	67,513,700	58,159,750
Sales of water to vessels	12,827,775	9,784,860	10,616,628

The extension and enlargement of water system in the Ancon-Balboa district for fire protection was advanced to 70 per cent of completion.

DREDGING.

All slides were quiescent during the month of April, 1924, with the exception of West Lirio (south) and West Culebra.

The slide at West Lirio (south), the north shoulder of which had partially broken up during the period of greatest activity in October, 1923, continued to settle between stations 1727 and 1731. The dredge has been able to take care of the material as rapidly as the pushout occurred. The total yardage removed from this slide since October 28, 1923, is 1,043,060 cubic yards. West Culebra slide has shown a slight general movement between stations 1776 and 1794. There was no interference with Canal traffic during the month.

The total excavation during the month was 292,850 cubic yards, as follows:

Cubic Yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
15,600	1,500	14,100	Maintenance	Pacific entrance	*Cascadas.*
1,600	.....	1,600	Maintenance	Gaillard Cut, Paraiso P. I. improvement project.	*Cascadas.*
700	.....	700	Maintenance	Gaillard Cut, Culebra slide	*Cascadas.*
68,850	8,250	57,600	Maintenance	Gaillard Cut, west Lirio slide (south)	*Cascadas.*
10,900	.....	10,900	Maintenance	Gaillard Cut, La Pita Point improvement project.	*Gamboa.*
3,100	800	2,300	Maintenance	Gaillard Cut, east barge repair slide	*Gamboa.*
76,450	10,100	66,350	Maintenance	Gaillard Cut, La Pita Point improvement project	*Paraiso.*
15,350	3,250	12,100	Maintenance	Gaillard Cut, Division office slide	*Paraiso.*
2,400	.....	2,400	Maintenance	Gaillard Cut, East Culebra	*Paraiso.*
20,100	20,100	.....	Maintenance	Gaillard Cut, barge repair slide	*No. 86* [1]
69,100	69,100	.....	Maintenance	Gaillard Cut, Culebra slides	*No. 86* [1]
11,700	11,700	.....	Maintenance	Gaillard Cut, Cucaracha reach	*No. 86* [1]

[1] Through relay.

The new floating electrical relay pump mentioned in the March report as having been put in service on March 31, 1924, was continued in service during the month with very satisfactory results. The indications are that the plant can be depended on to handle material efficiently to elevations of over 250 feet through short pipe lines (under 1,500 feet), or through a total pipeline length of about 3 miles for low lifts (under 20 feet). The delays to operations chargeable to the relay pump in April were 84 per cent of the total delays to the entire plant, and the cost of handling material with this outfit will be less than 50 per cent of the cost of handling with a dipper dredge.

VITAL STATISTICS.

A total of 138 deaths occurred during the month of April, 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 13.47 per thousand. The leading causes of death were: tuberculosis (various organs), 28; pneumonia (broncho and lobar), 24; diarrhea and enteritis (including colitis), 12; organic diseases of the heart, 8; and nephritis (acute and chronic), 8. There were 4 deaths from apoplexy, 2 from dysentery, 2 from cancer, and 2 from diphtheria. Of the total deaths, 56, or 41 per cent occurred among children under 5 years of age. There were 16 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 247 live births reported during the month, and 17 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 25.77 per 1,000 population. Deaths among children under one year of age numbered 32, giving an infant mortality rate of 129.55 per thousand live births.

The total number of malaria cases reported during the month was 67. Of these, one was reported from Panama City, one from Colon, 26 from the Canal Zone sanitated area, and 39 originated outside of our sanitated area. Of the total, 7 were employees, 21 were nonemployees, 39 were Army and Navy personnel. There was one death from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of April 30, 1924.			Comparative totals.		
	Men.	Women.	Children.	April, 1924.	April, 1923.	April, 1922.
Americans	2,500	2,036	2,230	6,766	6,295	6,347
Europeans	77	29	69	175	170	234
West Indians	4,144	2,603	6,097	12,844	12,766	12,311
Totals, April, 1924	6,721	4,668	8,396	19,785	.....	.....
Totals, April, 1923	6,588	4,634	8,010	.....	19,232	.....
Totals, April, 1922	6,549	4,502	7,841	.....	.....	18,892

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of April 16, 1924, as compared with March, 1924, and April, 1923:

	As of April 16, 1924.			Total employees.	
	Gold.	Silver.	Total.	March, 1924.	April, 1923.
Operation and Maintenance:					
Office	31	38	69	82	83
Electrical	159	180	339	377	371
Municipal Engineering	72	508	580	580	662
Lock operation	207	630	837	1,367	773
Dredging	161	874	1,035	1,027	971
Mechanical	404	713	1,117	1,264	989
Marine	174	505	679	641	625
Fortifications	14	35	49	137	190
Totals	1,222	3,483	4,705	5,475	4,664
Supply Department:					
Quartermaster	159	1,060	1,219	1,299	1,078
Subsistence	12	91	103	119	106
Commissary	177	840	1,017	1,005	958
Cattle Industry, plantations	5	185	190	189	328
Hotel Washington	8	92	100	103	97
Transportation	33	158	191	188	189
Totals	394	2,426	2,820	2,903	2,756
Accounting Department	191	8	199	200	190
Health Department	229	711	940	938	920
Executive Department	490	254	744	747	722
Totals	910	973	1,883	1,885	1,832
Panama Railroad:					
Superintendent	46	257	303	306	293
Transportation	63	115	178	175	171
Receiving and Forwarding Agent	75	1,043	1,118	929	773
Coaling stations	60	507	567	544	785
Totals	244	1,922	2,166	1,954	2,022
Grand totals, April, 1924	2,770	8,804	11,574	.....	.....
Grand totals, March, 1924	2,769	9,448	...	12,217	.....
Grand totals, April, 1923	2,529	8,745	...	...	11,274

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and with the corresponding month in 1923, were as follows:

	April, 1924.	March, 1924.	April, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$237,653.56	$347,987.13	$122,876.30
For other Panama Canal departments	20,348.47	5,450.53	2,873.95
Totals	258,002.03	353,437.66	125,750.25
Cash sales on the Isthmus:			
Stock	22,519.31	22,964.00	18,927.58
Fuel oil	6,306.04	117.95	.....
Scrap	373.69	558.32	4,542.55
Obsolete and second-hand material	128.19	3,776.14	100.00
Totals	29,327.23	27,416.41	23,570.13

Respectfully,

JAY J. MORROW,

Governor.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 24, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Port Hunter	17	14.05	18	6.20	18	13.45	18	14.45	British	Commonwealth & Dom. Line	481.0	62.3	25.9	New York	Australia	General	3,711	10,825	7,968
Trafalgar	17	14.35	18	6.30	18	14.39	18	15.49	British	Ardmore Coal & Steamship Co	385.0	52.0	23.0	New York	San Antonio	Coke and general	4,639	5,174	3,657
Brazil Maru	17	17.35	18	7.35	18	15.39	18	20.04	Japanese	Kokusai Kisen Kaisha	385.0	51.0	21.8	New York	Kobe	General	3,869	5,915	4,423
Mount Berwyn	18	0.45	18	7.35	18	16.31	18	17.39	British	H. E. Moss & Co	400.0	52.0	26.0	Norfolk	Antofagasta	Coal	6,934	5,783	3,990
Lewis Luckenbach	18	2.30	18	8.27	18	16.43	18	17.41	American	Luckenbach Line	496.0	68.2	27.6	Boston	Seattle	General	10,787	11,487	8,762
Norfolk	18	4.45	18	10.00	18	17.30	19	7.34	British	New Zealand Shipping Co	520.0	64.0	21.0	London	Auckland	General	6,704	12,963	9,337
Malta Maru	18	5.32	18	10.50	18	19.06	18	22.10	Japanese	Kokusai Kisen Kaisha	400.0	53.0	25.0	Antwerp	Los Angeles	General, cement	4,800	5,907	4,304
Lake Flattery	17	15.45	18	11.15	18	18.15	18	19.08	American	Panama Railroad Steamship Line	251.0	43.0	20.4	New York	Guayaquil	General	1,703	2,873	1,776
Lieut. Wilson B. Gaither [2]			18	9.30					American	U. S. Army	64.0	16.0		Cristobal	Pedro Miguel	Ballast			
Sirius [3]	17	15.34	19	9.30	19	16.15	20	10.37	American	U. S. Navy	401.7	54.0	20.6	Philadelphia	San Diego	Navy stores	2,459		
Agwismith [4]	19	11.00	19	11.10	19	18.42	19	20.00	American	International Shipping Co	499.9	68.1	24.0	New York	Los Angeles	Ballast		10,853	7,736
Salvador	14	18.40	20	6.00	20	14.26	20	17.40	British	Pacific Steam Navigation Co	215.0	35.5	16.6	Cristobal	Champerico	Explosives, gen.	1,146	1,270	735
Leon XIII	18	17.53	20	6.00	20	13.40	20	14.43	Spanish	Compania Transatlantica	410.4	46.1	22.5	Barcelona	Valparaiso	General	162	5,521	3,729
Amersfoort	19	11.25	20	7.15	20	15.19	21	2.16	Dutch	Royal Netherlands W. I. Mail	483.0	62.7	27.6	Hamburg	Corral	General	6,928	10,083	6,883
Trebartha	19	15.30	20	8.20	20	15.51	20	16.46	British	Norton, Lilly & Co	400.0	52.0	21.0	New York	Melbourne	General, case oil	4,250	6,005	4,416
Sisak	19	19.40	20	9.55	20	16.39	20	17.43	German	Kosmos Line	399.0	52.0	26.0	Hamburg	Corral	General	6,303	6,086	4,349
Bethelridge [4]	19	22.30	20	11.17	20	19.18	20	20.11	American	Walker & Daly (S. B.)	431.0	59.2	19.0	New York	San Pedro	Ballast		7,819	5,076
Canada [4]	21	7.55	21	8.15	21	15.28	22	12.18	Swedish	Johnson Line	426.9	56.0	25.0	Gothenborg	Portland	General	8,235	7,476	5,456
Japan Arrow [4]	21	9.15	21	9.25	21	16.19	21	17.25	American	Standard Transportation Co	468.3	62.7	19.0	New York	Los Angeles	Ballast		10,084	7,426
pirila [4]	21	6.33	21	10.30	21	18.09	21	19.08	British	Anglo-Saxon Petroleum Co	411.5	53.4	20.5	Liverpool	San Francisco	Ballast		6,126	4,296
Standard [4]	21	10.50	21	11.00	21	18.35	21	19.30	American	Standard Oil Co	523.0	68.0	20.0	New York	San Pedro	Ballast		12,171	8,782
Santa Luisa	21	13.10	21	13.30	21	19.29	22	15.35	American	Grace Line	360.2	51.6	22.0	New York	Talcahuano	General	1,807	5,694	3,975
J. L. Luckenbach	21	12.10	21	13.30	21	20.51	21	21.50	American	Luckenbach Line	448.9	60.2	25.5	Boston	San Pedro	General	5,000	9,294	6,861
Sailor [5]			21		21	10.02			American	J. A. Walker				Cristobal	Gatun	(6)		2	2
Affinity [5]			21		21	10.02			American	E. J. Hooper				Cristobal	Gatun	Unknown		4	4
Evelyn	21	13.10	22	6.09	22	13.46	22	23.24	American	Grace Line	313.6	46.1	17.10	New York	Guayaquil	(7)	2,941	3,615	2,560
Feltore	21	14.17	22	6.20	22	14.19	22	15.35	American	Ore Steamship Corporation	449.0	57.0	20.6	Baltimore	Cruz Grande	Ballast		7,808	5,139
Muncaster Castle	21	18.15	22	7.10	22	15.12	22	19.20	British	Barber Line	400.0	50.0	25.8	New York	Chefoo	Case oil	6,211	5,721	4,305
Sun [4]	21	19.30	22	8.40	22	15.55	22	16.55	American	Sun Oil Co	382.0	49.9	17.8	Jacksonville	San Francisco	Ballast		5,020	3,324
Poplar Branch	21	20.25	22	9.35	22	16.49	22	17.50	British	F. and W. Ritson	396.0	56.0	16.0	London	Corral	General	1,470	6,640	5,079
Finland	22	11.35	22	12.00	22	18.56	23	6.34	American	Panama-Pacific Line	560.0	60.0	22.9	New York	San Francisco	(8)	2,108	13,559	9,016
Gaelic Prince	22	12.00	23	6.10	23	13.45	23	14.48	British	Prince Line, Ltd	449.5	57.3	27.2	New York	Yokohama	(9)	7,851	9,160	6,698
Frieda	22	21.05	23	6.11	23	14.22	23	15.34	American	Union Sulphur Co	350.0	45.0	23.3	Sabine	San Pedro	Sulphur	4,900	3,894	2,039
Isis [4]	22	23.40	23	7.30	23	14.38	23	15.50	German	United American Line	392.9	51.6	24.0	Hamburg	Los Angeles	General	6,301	5,788	4,027

[1] Tanker. [2] Tug. [3] Supply ship. [4] Motor ship. [5] Launch. [6] Towing *Affinity*. [7] Steel pipe, iron, flour, railroad material, machinery, and general. [8] Furniture, dry goods, paper, and shoes.
[9] General, case oil, gasoline.

Swiftarrow [1]	22	23.59	23	8.10	23	15.52	23	17.14	American	C. D. Mallory & Co	464.0	60.0	25.0	Fall River	San Pedro	Ballast		8,473	6,050
A. C. Bedford [1]	23	0.25	23	9.50	23	16.33	23	17.50	American	Standard Oil Co	500.0	68.0	18.6	New York	San Pedro	Ballast		10,896	7,688
Virginian	23	4.10	23	10.15	23	17.41	23	18.34	American	American-Hawaiian Line	491.5	58.2	25.0	Philadelphia	Portland	General	7,200	10,491	7,546
Mayebashi Maru	23	11.00	23	11.45	23	18.54	23	19.40	Japanese	Nippon Yusen Kaisha	445.0	58.0	16.6	New York	Kobe	([11])	3,103	8,012	5,749
Somme [10]	23	6.19	24	6.05	24	13.49	24	14.30	American	U. S. Government	448.0	58.0	24.0	Brooklyn	San Francisco	Government sup.	1,522		
Alvarado	22	19.55	24	6.15	24	14.31	24	19.15	British	Pacific Steam Navigation Co	303.0	43.0	16.0	New York	Callao	General	1,281	2,844	1,748
Fairfield City	23	16.00	24	7.00	24	15.19	24	16.22	American	Isthmian Line	425.0	56.0	25.3	Philadelphia	Batavia	([12])	8,237	7,611	5,450
Steel Age	23	19.00	24	8.08	24	15.49	24	16.40	American	Isthmian Line	395.5	55.0	27.3	Baltimore	San Francisco	([13])	9,036	7,330	5,245
Caeique	23	15.50	24	11.15	24	20.20	24	21.20	American	Pacific Mail Steamship Co	394.2	51.3	23.6	Baltimore	San Francisco	General	5,864	6,652	4,913
Hugoton [1]	24	11.25	24	11.45	24	20.44	24	21.30	American	Malston Line	434.8	56.2	21.6	Baton Rouge	San Pedro	Ballast		7,429	5,175

[1] Tanker. [10] Transport. [11] Machinery, cotton, and oil. [12] Steel products, and general. [13] Steel, tinplate, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Resolute	17	14.16	18	6.15	18	13.30	18	14.15	Panaman	United American Line	588.5	72.3	25.0	Tahita	New York	Ballast		21,082	13,028
Hertford	17	6.25	18	7.09	18	14.45	18	14.45	British	Federal Steam Navigation Co	520.1	64.2	23.6	Bluff	London	([16])	6,553	12,933	9,314
Alden Anderson [1]	17	18.00	18	8.13	18	16.55	18	16.55	American	Associated Oil Co	426 1	54.8	26.0	San Francisco	Fall River	Crude oil	10,000	7,340	5,236
Santore	17	19.40	18	8.43	18	17.45	18	19.15	American	Ore Steamship Co	449.1	57.2	29.0	Cruz Grande	Baltimore	Ore	10,800	7,808	5,139
Mineola	18	3.00	18	9.15	18	18.00	18	18.00	American	N. O. & S. A. S. S. Co	298.6	40.0	21.6	Talcahuano	New Orleans	Nitrate of soda	3,970	2,835	1,805
Albertolite [1]	18	4.30	18	9.39	18	19.00	18	19.00	British	Imperial Oil Co	463.0	50.2	28.0	Talara, Peru	Charleston	Crude oil	11,396	8,491	5,879
Lisbon Maru	17	20.50	18	11.19	18	18.30	19	11.20	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.8	Kobe	New York	([17])	7,409	8,015	5,849
Liberator	17	20.30	18	12.40	18	21.30	18	21.30	American	Tampa Interocean Steamship Co	410.0	56.0	30.0	Manila	New Orleans	Sugar, rice, gen.	10,462	8,199	6,216
Agwihavre [1]	18	12.20	18	13.05	18	22.18	18	22.18	American	International Shipping Co	480.5	66.0	29.0	Los Angeles	New York	Crude oil	13,471	9,394	6,305
Lebore	18	8.36	18	95.28	19	14.10	19	14.10	American	Ore Steamship Co	549.6	72.2	32.10	Cruz Grande	New York	Iron ore	19,800	14,325	4,635
Willsolo	19	6.30	19	7.59	19	15.12	19	15.12	American	Williams Steamship Co	435.0	57.0	26.9	Seattle	New York	Lumber, general	8,000	7,983	5,882
Nordkyn	19	7.15	19	8.25	19	17.25	19	22.40	Norwegian	Gorrison & Co	386.0	53.0	24.6	Bangkali	Tarafa	Rice	7,124	5,890	4,120
Westwego [1]	19	7.40	19	9.49	19	18.45	19	23.25	American	Union Petroleum Co	387.0	51.7	25.0	San Francisco	London	Lubricating oil	5,900	5,387	3,789
Artigas	19	4.00	19	10.20	19	18.40	19	18.40	American	Barber Line	401.0	54.0	22.0	Tacoma	New York	([18])	5,380	6,204	4,314
La Brea [1]	19	10.15	19	11.05	19	19.15	19	19.15	American	Union Oil Co. of California	435.0	56.2	25.8	Los Angeles	Philadelphia	Gasoline	9,060	7,150	4,765
Osiris	19	6.40	19	13.00	19	20.35	19	20.35	German	United American Line	375.0	52.0	24.3	San Pedro	Hamburg	General	5,800	5,789	4,022
San Fabian [1]	19	12.30	19	14.05	19	22.15	19	22.15	British	Anglo-Mexican Petroleum Co	530.6	69.04	31.0	San Pedro	Tampico	Crude petroleum	17,515	13,354	9,614
Venetia [14]	19	14.10	20	6.18	20	13.25	20	13.25	American	John D. Spreckels	196.5	27.1	14.6	San Diego	Washington	Ballast		569	209
O-8 [15]			20	6.11	20	13.25			American	U. S. Navy				Balboa	Cristobal				
O-10 [15]			20	6.11	20	13.25			American	U. S. Navy				Balboa	Cristobal				
Bantu	19	23.45	20	7.09	20	16.05	20	18.10	American	Isthmian Line	360.0	47.0	24.6	Tocopilla	Charleston	Nitrate of soda	6,200	4,607	3,032
O-7 [15]			20	6.36	20	13.25			American	U. S. Navy				Balboa	Cristobal				
Vittorio Veneto	20	6.00	20	8.10	20	17.15	20	21 45	Italian	La Veloce Line	393.6	49.0	14.0	Valparaiso	Genoa	General	907	4,854	3,232
O-3 [15]			20	7.32	20	16.00			American	U. S. Navy				Balboa	Cristobal				
O-9 [15]			20	8.50	20	16.50			American	U. S. Navy				Balboa	Cristobal				
O-1 [15]			20	8.55	20	16.50			American	U. S. Navy				Balboa	Cristobal				
R-26 [15]			20	9.09	20	16.50			American	U. S. Navy				Balboa	Cristobal				
Mexican	20	8.57	20	10.10	20	18.45	20	23.44	American	American-Hawaiian Line	472.3	57.2	26.0	Seattle	New York	General	7,065	9,258	6,874
Curaca	19	23.50	20	11.28	20	19.30	20	19.30	Panaman	Grace Line	403.0	57.2	29.9	Punta Arenas	New York	([19])	8,918	6,804	4,897
Andrea F. Luckenbach	20	9.29	20	11.58	20	20.40	20	20.40	American	Luckenbach Line	496.0	68.2	28.0	Los Angeles	Boston	Lumber, general	12,258	11,487	8,762

[1] Tanker. [14] Yacht. [15] Submarine. [16] Cold storage and general. [17] Sugar, coconut oil, and general. [18] Lumber, silk, and hay. [19] Sheep skin, ores, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Curlew	.....	.....	21	6.25	21	14.10	.....	.....	American	U. S. Navy	180.0	35.6	.....	Balboa	Cristobal	.....	.....	.....	.....
O-2 [20]	.....	.....	21	6.35	21	14.13	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa	Cristobal	.....	.....	.....	.....
Fulton	.....	.....	21	6.31	21	14.10	.....	.....	American	U. S. Navy	216.0	35.0	.....	Balboa	Cristobal	.....	.....	.....	.....
Alaska Maru	20	19.30	21	7.08	21	14.47	21	15.43	Japanese	Osaka Shosen Kaisha	420.0	56.0	20.0	Hongkong	New York	General	4,820	7,775	5,641
Manchuria	21	3.20	21	8.11	21	16.35	21	22.22	American	Panama-Pacific Line	600.0	65.3	27.0	San Francisco	New York	General	1,803	17,044	11,483
Venezuela	20	22.00	21	9.12	21	17.25	23	16.05	Italian	La Veloce Line	420.0	51.6	20.6	Valparaiso	Genoa	General	7,198	7,622	5,051
Quail	.....	.....	21	9.22	21	17.20	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa	Cristobal	.....	.....	.....	.....
No. 285 [21]	.....	.....	21	9.22	21	17.20	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa	Cristobal	.....	.....	.....	.....
Bengloe	21	2.00	21	10.08	21	18.20	21	19.20	British	Ben Line, Ltd	405.0	52.6	23.7	Vancouver	Europe	Wheat	7,960	5,780	4,359
Riol	21	3.00	21	10.44	21	19.50	21	21.05	British	Sir. W. R. Smith & Sons, Ltd	401.0	34.6	26.0	Vancouver	Hampton R'ds	Wheat	7,600	6,362	4,722
Sciota	.....	.....	21	11.15	21	17.10	.....	.....	American	U. S. Navy	155.0	30.0	.....	Balboa	Cristobal	.....	.....	.....	.....
King Idwal	21	6.45	21	13.18	21	20.50	22	6.34	British	Dodd, Thompson & Co	400.0	52.0	26.0	Vancouver	Gibraltar	Wheat in bulk	7,316	6,031	4,357
Huallaga	21	11.00	21	14.41	21	23.10	24	6.15	Peruvian	Peruvian Line	360.0	44.7	21.6	Callao	Covenas	General	2,967	4,514	2,386
Cape Ann [1]	21	19.10	22	6.11	22	14.45	22	14.45	American	Cape Steamship Line	425.8	57.0	28.6	San Pedro	New York	Crude oil	10,000	7,484	5,216
Clement Smith [1]	21	23.35	22	7.20	22	15.45	22	15.45	American	Oil Transport Co	431.0	59.2	28.0	Los Angeles	New York	Crude oil	10,000	8,097	5,532
D. G. Schofield [1]	22	0.15	22	7.43	22	16.17	22	16.17	American	Standard Oil Co. of California	439.5	58.0	30.0	Los Angeles	New York	Crude oil	10,898	8,898	6,013
Ipswich	22	2.30	22	8.42	22	16.50	22	16.50	American	United American Line	400.0	54.0	25.6	Portland	Baltimore	Lumber, general	7,252	6,616	4,614
A. L. Kent	22	5.26	22	8.48	22	17.35	22	17.35	American	Mystic Steamship Line	394.0	55.6	26.3	Seattle	New York	Lumber, general	8,300	7,047	5,030
Circinus	22	7.30	22	9.20	22	18.00	22	18.00	American	Planet Line, Inc	410.0	54.2	23.6	Vancouver	Philadelphia	([22])	7,120	6,585	4,791
Teno	22	4.00	22	10.18	22	18.54	22	21.07	Chilean	United Fruit Co	421.8	56.0	29.2	Valparaiso	New York	General	5,062	7,758	4,672
Hampton Roads [1]	22	1.03	22	11.35	22	19.10	22	19.10	American	McAllister Brothers, N. Y.	431.0	59.2	26.0	San Pedro	New York	Crude oil	9,300	8,093	5,541
Catherine G. Sudden	22	5.30	22	13.28	22	20.50	23	5.40	American	Sudden, Christensen & Co	277.0	43.0	18.6	Aberdeen	New York	Lumber	2,500	2,404	1,506
K. R. Kingsbury [1]	22	15.20	23	6.19	23	14.05	23	14.05	American	Standard Oil Co. of California	440.0	58.2	30.7	San Pedro	New York	Crude oil	12,000	9,033	5,938
Laura C. Hall	4-30	16.35	23	14.16	24	16.55	26	7.30	British	Pacific Metals Corporation	81.0	25.6	9.0	Buenaventura	Cristobal	Platinum [23]	.....	132	72
Ebergen	23	16.30	24	6.20	24	14.22	24	15.05	Dutch	Furness Shipping Agency	384.9	52.0	23.0	Vancouver	Newport News	Wheat	7,110	5,354	3,839
Hagood [1]	24	3.00	24	7.25	24	15.35	24	15.35	American	Cities Service Corporation	435.6	56.2	27.0	San Pedro	Boston	Crude oil	10,000	7,426	5,094
Chilore	24	9.51	24	12.33	24	21.45	24	21.45	American	Ore Steamship Corporation	549.6	72.2	33.6	Cruz Grande	Baltimore	Iron ore	20,000	14,538	9,348

[1] Tanker. [20] Submarine. [21] Subchaser. [22] Magnesite ore and lumber. [23] Value, $150,556.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 622, column 2.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 24, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ulua	United Fruit Co	May 18.	May 18.	10	12
Parismina	United Fruit Co	May 18.	May 18.	290	150
Loreto	Pacific Steam Navigation Co.		May 18.		325
Lisbon Maru	Nippon Yusen Kaisha	May 18.	May 19.	223	(1)
Cristobal	Panama Railroad Steamship Line.		May 19.		2,110
Leon XIII	Spanish Line	May 18.	May 20.	343	(1)
Alexandrian	Leyland Line	May 18.	May 20.	774	224
Amersfoort	Royal Netherlands W. I. Mail.	May 19.	May 20.	444	152
Salvador	Pacific Steam Navigation Co		May 20.		1,134
Toloa	United Fruit Co.	May 20.	May 21.	185	86
Atenas	United Fruit Co	May 20.	May 22.	1,048	702
Santa Luisa	Grace Line	May 21.	May 21.	(2)	3
Amassia	Hamburg-American Line	May 21.	May 22.	73	21
Evelyn	Grace Line	May 21.	May 22.	318	413
Venezuela	Italian Line	May 21.	May 23.	236	1,657
Huallaga	Peruvian Line	May 21.	May 23.	2,967	(1)
Strombus	Anglo-Saxon Petroleum Co	May 21.	May 23.	8,363	(1)
Santa Marta	United Fruit Co.	May 21.	May 22.	173	288
Parismina	United Fruit Co	May 21.	May 21.	5	11
Carrillo	United Fruit Co	May 21.	May 22.	80	88
Alvarado	Pacific Steam Navigation Co.	May 22.	May 24.	54	511
Teno	Chilean Line	May 22.	May 22.	16	(1)
Nora	Pan-American Petroleum Co	May 22.	May 24.	10,000	(1)
General W. C. Gorgas.	Panama Railroad Steamship Line	May 23.		1,911	
Cacique	Pacific Mail Steamship Line.	May 23.	May 24.	366	380
Kyphissia	Hamburg-American Line.	May 23.	May 24.	64	319
Benefactor	Leyland Line	May 24.		660	

(1) No cargo laded. (2) No cargo discharged.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 24, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
U. S. S. Sirius	U. S. Government	May 19.	May 20	6	7
Salvador	Pacific Steam Navigation Co.	May 20.	May 20.		19
Amersfoort	Royal Netherlands W. I. Mail	May 20.	May 20.	338	
Teno	South American Line.	May 21	May 22.	16	
Canada	Johnson Line	May 21.	May 21.	166	
Venezuela	Italian Line	May 21.	May 21.	101	
Alvarado	Pacific Steam Navigation Co.	May 24.	May 24.		164

Traffic Prospects.

Cargo handled through the Panama Canal during the month of April, 1924, averaged 71,957 tons a day, as compared with 73,305 tons in March, 77,365 tons in February, and 78,301 tons in January. California crude oil averaged 13,753 tons a day in April, as against 23,587 tons in March, and 30,329 tons in September, 1923, the peak month. The oil situation, therefore, accounts for the April decline. In fact, with oil excluded, the cargo handled in April averaged 58,204 tons a day, as compared with 49,718 tons a day in March.

Several new records were established during April. The wheat in transit from Pacific to Atlantic totaled 174,930 tons, the highest monthly total since January, 1921, when the compilation of detailed commodity statistics was begun. Of this total, 121,692 tons was shipped from Canadian ports, 47,238 from United States ports, and the small remainder from South America, etc. The shipping season for northwestern wheat is drawing to a close, and wheat cargoes will probably be light until next fall, but there is reason to expect that,

with the improvement of storage and loading facilities at Vancouver, there will be a very material increase in Canadian shipments next year. According to an editorial in *Lloyd's List and Shipping Gazette* for May 2, 1924, wheat grown in western Canada can be shipped to Great Britain via Vancouver and Panama, for 37 cents a bushel, as against 47 cents a bushel via Montreal.

Lumber shipments from the Pacific coast of the United States also exceeded all previous records, with 176,694 tons. Canada furnished 39,215 tons additional.

A third record was set by Chilean iron ore, with 100,720 tons, and the tonnage of crude oil from Peru, 42,400, has been exceeded only once.

Nitrate shipments were relatively light, 121,925 tons.

The most unfavorable detail in the present situation is the decline in westbound cargo in the United States intercoastal trade. This dropped from 946,720 tons for the period January to April, 1923, to 887,631 tons for the same 4 months in 1924. From a steamship operator's point of view the intercoastal situation has improved; some of the weaker lines have been forced out, and services have been curtailed; the trade is no longer overtonnaged to the same extent as 6 months or a year ago; but its growth has apparently been arrested, and it is even losing ground at a time when general business conditions in the United States seem favorable to its further development.

Over other trade routes a comparison of the statistics for the first 4 months of 1924, with the corresponding figures for 1923, shows normal growth or better, with the sole exception of shipments from the west coast of South America to Europe. These declined from 558,527 tons to 437,803 tons. Lighter nitrate exports account for the difference.

It may be taken for granted that California oil cargoes will decline still further, but with each month it becomes more probable that growth in other directions will compensate for the loss in oil. Six months ago it was assumed that cargo might decline to 1,500,000 tons a month, but to-day, with more than half of the oil traffic already lost, and cargo still running well above 2,000,000 tons a month, a much more optimistic forecast is justified.

Damages to Vessels.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 21, 1924.

Attention is invited to paragraphs 227 to 239 of Transit and Harbor Regulations of The Panama Canal, and particularly to paragraphs 228 and 231, reading as follows:

"228. In case a vessel, or its passengers or cargo, meets with an accident or sustains any damage which may be the basis of any claim against the Panama Canal, it shall be reported immediately to the Port Captain, who will refer it to the Board of Local Inspectors, and the Board, or a member thereof, shall hold an investigation as soon as possible.

"231. All matters pertaining to such an investigation shall be completed before the vessel concerned leaves Canal waters, and no claim will be considered unless the reason therefor has been laid before the Canal authorities prior to the vessel's sailing."

If a vessel that may have been injured in the Canal, leave Canal Zone waters without submitting to the investigation as provided in the above quoted paragraphs, The Panama Canal must refuse to accept any liability for any damage.

When an investigation is made by the Board of Local Inspectors in accordance with the above-quoted paragraphs, and the Canal is found responsible for the damage done, but the vessel is found seaworthy and proceeds on her way, the Board of Local Inspectors will cause an estimate to be made of the cost of effecting the repairs in Canal Zone waters. If the repairs be subsequently effected at some port other than

in the Canal Zone, the cost of such repairs, for which The Panama Canal will assume liability, will be limited to the cost of repairs as originally estimated by the Board of Local Inspectors of The Panama Canal.

The adoption of the foregoing rules is made necessary by reason of the fact that it is impracticable for The Panama Canal to have inspectors in the various ports in which ships may repair, and will obviate needless correspondence and facilitate the prompt settlement of all claims.

JAY J. MORROW,
Governor.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 15, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	21
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	46
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	35
Oil, kerosene, in drums	Gal.	20
Oil, marine engine	Gal.	50
Paint, lead, white, dry	Lb.	14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	125
Grease, gear, chain and wire rope, lubricating	Lb.	06
Grease, yellow, cup, No. 3	Lb.	09
Grease, yellow, cup, No. 5	Lb.	10
Soda, ash	Lb.	03
Waste, cotton, colored	Lb.	16
Waste, cotton, white	Lb.	17

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port au Prince	Arrive Cristobal.	Leave Cristobal.	Leave Port au Prince	Arrive New York.
General W. C. Gorgas	May 15	May 21	May 24	May 29	June 1	June 6.
Panama	May 24	May 29	June 1	June 9	June 12	June 17.
Cristobal [1]	June 5	June 10	June 13	June 19	June 22	June 27.
General W. C. Gorgas	June 14	June 20	June 23	June 29	July 2	July 7.
Panama	June 25	June 30	July 3	July 9	July 12	July 17.
Cristobal [1]	July 5	July 10	July 13	July 20	July 23	July 28.
General W. C. Gorgas	July 15	July 21	July 24	July 29	August 1	August 6.
Panama	July 25	July 30	August 2	August 8	August 11	August 16.

Effective May 5 steamers sail daylight saving time.
Steamers sail at 3 p. m. from Pier 67, North River, foot of West 27th Street, New York.
[1] Sails 3 p. m. from Pier 65, North River, foot of West 25th Street.

WEST COAST SERVICE.

In addition, a regular freight service is maintained, without calls en route, direct to Cristobal, Buenaventura, and Ecuadorian ports. Particulars upon application.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4, of the tariff.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 618.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
May 18	Parismina	United Fruit Co	New Orleans via Habana.
May 18	Ulua	United Fruit Co	Port Limon.
May 18	Alexandrian	Leyland Line	Liverpool via wayports.
May 20	Toloa	United Fruit Co	New York via Habana.
May 20	Atenas	United Fruit Co	New Orleans via Habana.
May 21	Parismina	United Fruit Co	Bocas del Toro.
May 21	Santa Marta	United Fruit Co	New York via Kingston.
May 21	Strombus	Anglo-Saxon Petroleum Co	Curacao.
May 21	Carrillo	United Fruit Co	Colombian ports.
May 21	Amassia	Hamburg-American Line	Hamburg via wayports.
May 22	Nora	Pan-American Petroleum Co	Tampico.
May 23	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
May 24	Kyphissia	Hamburg-American Line	Puerto Barrios.
May 23	La Louise [24]	Hyatt Manganese Mines	Colon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
May 18	Parismina	United Fruit Co	Bocas del Toro.
May 18	Ulua	United Fruit Co	New York via Habana.
May 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
May 20	Alexandrian	Leyland Line	Port Limon.
May 21	Parismina	United Fruit Co	New Orleans via Habana.
May 21	Toloa	United Fruit Co	Port Limon.
May 22	Carrillo	United Fruit Co	New York via Kingston.
May 22	Santa Marta	United Fruit Co	Colombian ports.
May 22	Atenas	United Fruit Co	New Orleans via wayports.
May 22	Amassia	Hamburg-American Line	Port Limon.
May 23	Strombus	Anglo-Saxon Petroleum Co	Tampico.
May 23	La Louise [24]	Hyatt Manganese Mines	Colon.
May 24	Kyphissia	Hamburg-American Line	Puerto Colombia.

[24] Schooner.

* Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., June 4, 1924. No. 43.

Traffic in May.

During the month of May, 1924, there were 417 commercial transits of the Panama Canal on which tolls to the amount of $1,955,764.91 were paid. In addition to the commercial transits, 12 small nonseagoing launches passed through the Canal, paying tolls to the amount of $83.25, and 43 vessels belonging to or chartered by the United States Government made the transit without tolls, making the total transits for the month 472, or a daily average on all transits of 15.23.

The daily average tolls collection, commercial traffic only, was $63,089.19, and the daily average on all traffic was $63,091.88.

Detail of the month's traffic segregated by direction is as follows:

	Vessels.				Tolls.		
	Commercial.	Launches	Government.	Total.	Commercial.	Launches.	Total.
Atlantic to Pacific	209	11	24	244	$926,387.18	$82.50	$926,469.68
Pacific to Atlantic	208	1	19	228	1,029,377.73	.75	1,029,378.48
Totals	417	12	43	472	1,955,764.91	83.25	1,955,848.16

The average of tolls paid by each commercial vessel was $4,690.08, and the average daily number of commercial transits was 13.45.

In the tabulation below is given in comparative form the commercial traffic for the first 11 months of the fiscal years, 1923 and 1924, the traffic being shown month by month with daily averages for each, with monthly and daily averages for the whole period:

Month.	Aggregate monthly.				Daily averages.			
	Number of transits.		Tolls.		Number of transits.		Tolls.	
	1923.	1924.	1923.	1924.	1923.	1924.	1923.	1924.
July	251	474	$1,094,127.42	$2,124,830.02	8.10	15.29	$35,294.43	$68,542.90
August	257	454	1,055,336.75	2,050,656.97	8.29	14.65	34,043.12	66,150.12
September	240	413	1,020,064.55	1,902,453.61	8.00	13.77	34,002.15	63,415.12
October	294	427	1,255,508.00	1,988,607.69	9.48	13.77	40,500.26	64,148.63
November	294	436	1,264,436.54	2,058,188.61	9.80	14.53	42,147.88	68,606.29
December	304	506	1,312,570.12	2,335,729.81	9.81	16.32	42,340.97	75,346.12
January	352	476	1,505,285.55	2,216,855.01	11.35	15.35	48,557.60	71,511.45
February	326	418	1,423,954.21	1,964,155.59	11.57	14.41	50,855.51	67,729.50
March	409	429	1,827,718.44	1,997,138.83	13.19	13.84	58,958.66	64,423.83
April	404	403	1,878,938.15	1,903,761.27	13.47	13.43	62,631.27	63,458.71
May	419	417	1,972,216.04	1,955,764.91	13.52	13.45	63,619.87	63,089.19
Totals	3,550	4,853	15,610,155.77	22,498,142.32	.....	.....	.....	.....
Average	322.7	441.1	1,419,105.02	2,045,284.03	10.60	14.44	46,597.48	66,958.76

Comparing the first 11 months of the current fiscal year with the preceding fiscal year shows the following: Increase in number of commercial transits, 1,303, or approximately 36 per cent; increase in tolls on commercial traffic, $6,887,986.55, or approximately 44 per cent.

April of the current fiscal year was the first month in which the number of transits fell below that of the corresponding month in the preceding year, and May of the current fiscal year was the first month in which the amount of tolls collected fell below that of the corresponding month of last year.

Hamburg-American Line Passenger Service.

The Hamburg-American Line has announced the inauguration of a passenger service with monthly sailings between Hamburg and the Caribbean coast of South and Central America, with the sailing from Hamburg of their new steamship *Teutonia*, a vessel of 6,600 tons gross, on May 17, 1924. Ports of call include La Guayra, Puerto Cabello, Curacao, Puerto Colombia, Cartagena, Cristobal, Port Limon, and Puerto Barrios, with return in reverse order.

The first vessel is expected to arrive at Cristobal on or about June 14, and, after calling at Port Limon and Puerto Barrios, to return to Cristobal and sail for Hamburg via the points above-mentioned and Amsterdam, on June 30.

The *Teutonia* will be followed by her sister ships, the *Galacia*, which sails from Hamburg on June 14, and the *Rugia*, which sails in July.

Radio Advice from Ships as to Hour of Arrival at Canal.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., May 26, 1924.

MEMORANDUM TO STEAMSHIP AGENTS:

More expeditious transits could be secured if better information were given Port Captains as to hour of arrival of vessels.

At present some ships do not furnish any radio information to the Canal officials predicting their hour of arrival, and some of the predictions are in error as much as 12 hours. When the predicted hour of arrival is reported only to agents, this should be relayed promptly by them to the Port Captains.

Some ships send predicted hour of arrival too long before they reach port, thus involving error due to currents. If these vessels waited until they were only about 24 hours out and took frequent navigational sights when nearing the Canal, there would be less error in predicted hour of arrival.

Attention to these matters, with careful application of current effects, should result in a more efficient Canal service in connection with Canal transits.

A. W. HINDS,
Marine Superintendent.

Damages to Vessels.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., May 27, 1924.

MEMORANDUM FOR BOARD OF LOCAL INSPECTORS:

Attention is invited to the Governor's circular of 21 May, 1924,[1] and especially to the last sentence of the fifth paragraph.

As The Panama Canal's liability is limited to the original estimate of cost of repairs, we should be careful that the estimates are fair both to the ship and the Canal.

In cases where oil tanks must be steamed out, even though the repairs are to be made at a later date at a routine overhaul, it is considered equitable to include the cost of steaming out tanks in the estimated cost of repairs.

Where the vessel is to continue in operation and effect repairs later, it may be assumed that the repairs will be made at a regular overhaul period, so demurrage should not be included.

A. W. HINDS,
Supervising Inspector.

Approved:
JAY J. MORROW,
Governor.

[1] Published in THE PANAMA CANAL RECORD of May 28, 1924.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended June 2:

Steamships *General W. C. Gorgas*, connect up vent pipe to main condenser; renew gear guard on No. 1 winches; repair ventilators, ladder to No. 2 hold and fire tools and chisels; *Acajutla*, repair boilers, bilge pump, main circulating pump, steering gear, steering engine, deck service pipe, winches, steam pipes, tanks, hatches, tube stoppers, deck planking on boat deck, rails, scupper pipe, angle stanchions from upper to boat decks, and davits for starboard dinghy; scale and paint ship's side plates between deep and light load line, etc.; *Ulysses*, make and fit set of snap rings for port m. p. cylinder and true up grooves in bull ring, also one set of crosshead brasses for starboard circulator; rebore valve chest of fresh water pump and make new valve and rings; manufacture and install smoke pipe and stack for baker's oven; repair "scotchman" for towing cable; manufacture 8 piston rings for towing engine, angle plate for lathe, and 12 pipe hangers; repair hand tools and copper steam pipe; clean boilers, etc.; *Panama*, repair stanchions No. 2 hold, and sanitary piping on saloon deck; refasten longitudinal channel to floor plates under No. 2 tank top, starboard side; patch bulkhead of main deck house as directed; complete scaling work on main deck; install drip pans as directed, etc.

Minor repairs.—Steamships *Evelyn*, *Muncaster Castle*, *Cauca*, *Huallaga*, *Venezuela*, *Amsterdam*, *Heredia*, *Achilles*, *Killerig*, *Balboa*, *Denderah*, *Turrialba*, *Arana*, *Jamaica*, *San Juan*, *F. Q. Barstow*, *Greylock*, barge *Darien*, tugs *Tavernilla* and *Supply No. 2*, launches *El Vigia*, *Wilhelm*, and *Hibiscus*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending May 31, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Heredia	United Fruit Co	May 25	May 25	396	83
Toloa	United Fruit Co	May 25	May 25	15	245
Santa Clara	Pacific Mail Steamship Co	May 25	May 26	(1)	814
Laura C. Hall	Pacific Metals Corporation		May 26		95
Amsterdam	Royal Netherlands W. I. Mail	May 25	May 26	205	(2)
Cardiganshire	Pacific Steam Navigation Co	May 26	May 26	(1)	75
Huallago	Peruvian Line	May 26	May 28	(1)	903
Santa Malta	Pacific Mail Steamship Co	May 26	May 28	322	2,540
Calamares	United Fruit Co	May 27	May 28	228	762
Oranje Nassau	Royal Netherlands W. I. Mail	May 27	May 28	586	(2)
Denderah	Kosmos Line	May 27	May 28	214	19
Arana	Pacific Steam Navigation Co	May 27	May 28	705	122
Turrialba	United Fruit Co	May 27	May 28	964	175
Oriana	Pacific Steam Navigation Co	May 28	May 29	133	151
Acajutla	Pacific Steam Navigation Co	May 28		1,015	
Ucayali	Peruvian Line	May 28		1,518	
Metapan	United Fruit Co	May 28	May 29	290	126
Heredia	United Fruit Co	May 28	May 28	2	(2)
Santa Marta	United Fruit Co	May 29	May 29	2	101
Gen. W. C. Gorgas	Panama Railroad Steamship Line		May 29		2,829
Balboa	Colombian Maritime Co	May 29	May 30	9½	25
Essequibo	Pacific Steam Navigation Co	May 30	May 30	107	49
Iowa	French Line	May 30	May 31	37	160
Oranje Nassau	Royal Netherlands W. I. Mail	May 30	May 31	4	831
San Juan	Pacific Mail Steamship Line	May 31		1,365	
Venezuela	Pacific Mail Steamship Co	May 31		363	
Bayano	Elders & Fyffes, Ltd	May 31	May 31	9	(2)

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending May 31, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Arana	Pacific Steam Navigation Co	May 27	May 27	28	46
Ucayali	Peruvian Line	May 28	May 28	6	
Denderah	Kosmos Line	May 28	May 28	½	
Anomia	Anglo-Saxon Petroleum Co	May 29	May 29	7,200	
Lompoc	Union Oil Co	May 29	May 31	9,500	46
Essequibo	Pacific Steam Navigation Co	May 30	May 30	[1] 10	
San Juan	Pacific Mail Steamship Co	May 31	May 31	79	

[1] Baggage.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 31, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Benefactor	24	6.05	25	6.08	25	13.13	25	14.12	British	T. and J. Harrison	410.7	52.0	20.4	Glasgow	Seattle	General	5,200	6,314	4,322
Mount Carroll	24	22.25	25	7.50	25	14.01	25	14.32	American	United American Line	440.3	57.2	21.0	New York	Los Angeles	General	3,275	8,095	5,655
Patrician	24	6.10	25	8.20	25	15.28	25	16.32	British	T. and J. Harrison	423.0	56.0	13.7	Demerara	Vancouver	Ballast		6,353	4,598
John D. Archbold [1]	25	11.35	25	11.45	25	18.40	25	21.30	American	Standard Oil Co	554.9	75.3	21.0	New York	San Pedro	Ballast		11,785	10,313
Cherry Branch	25	11.50	25	12.00	25	19.43	25	20.52	British	Nautilis Steamship Co	400.5	51.9	19.6	Liverpool	Talcahuano	General	3,151	5,403	3,967
Emidio [1]	25	23.15	25	12.30	25	20.27	25	22.20	American	General Petroleum Co	435.0	56.2	20.0	Thameshaven	San Pedro	Ballast		7,433	5,058
Vancolite [1]	25	15.00	26	6.15	26	13.34	26	16.47	British	Imperial Oil Co	500.3	68.0	19.0	Charleston	San Pedro	Ballast		11,043	7,874
Yankee Arrow [1]	25	16.30	26	6.15	26	14.43	26	15.45	American	Standard Transportation Co	468.3	62.7	26.6	Beaumont	Woosung	(4)	11,131	9,841	6,946
Steelore	25	20.05	26	7.30	26	15.46	26	16.49	American	Ore Steamship Corporation	550.3	72.2	21.0	New York	Cruz Grande	Ballast		15,551	4,297
Laura C. Hall [2]	24	16.55	26	7.30	26	17.28	27	8.39	British	Pacific Metals Corporation	81.0	26.0	9.0	Cristobal	Buenaventura	General	67	132	72
Port Augusta	25	23.58	26	7.35	26	17.22	26	18.39	British	Commonwealth & Dom. Line	380.0	49.1	24.6	Philadelphia	Auckland	General, case oil	3,839	5,192	3,854
Elkton	26	2.20	26	8.20	26	16.38	26	23.45	American	Barber Line (S. B.)	402.6	54.5	25.6	New York	Hongkong	Coal, general	7,958	6,929	5,216
Rhine Maru	25	9.43	26	9.50	26	17.32	26	18.29	Japanese	Kawasaki Dockyard Co	405.0	53.0	16.0	Boston	Iquique	Ballast		7,044	5,136
Panama Maru	26	9.50	26	10.10	26	18.23	26	19.24	Japanese	Osaka Shosen Kaisha	400.0	51.8	22.0	Buenos Aires	Yokohama	General	2,734	6,099	4,285
Robin Adair	26	10.15	26	10.40	26	19.18	27	3.45	American	Seas Shipping Co	424.8	55.2	24.10	New York	San Diego	Steel, general	7,575	7,470	5,529
Amsterdam	25	21.55	26	11.25	26	20.00	27	5.39	Dutch	Royal Netherlands W. I. Mail	475.0	65.6	29.3	Holland	Corral	(5)	12,500	11,647	8,217
Anomia [1]	26	12.05	26	12.17	26	20.15	....	.....	British	Anglo-Saxon Petroleum Co	400.6	52.3	25.6	Liverpool	Balboa	Fuel oil	7,200	6,097	4,438
William Rockefeller [1]	26	13.15	26	13.25	26	21.10	26	22.12	American	Standard Oil Co	554.9	75.3	22.0	New York	San Pedro	Ballast		14,785	10,313
Canadian Planter	26	16.15	27	6.10	27	13.47	27	14.52	British	Canadian Govt. Mer. Marine	400.3	52.0	20.2	Montreal	Vancouver	General	4,000	5,842	4,092
Killerig [3]	26	18.30	27	6.05	27	13.47	27	13.56	British	Lindsay Swan Hunter	172.0	30.0	13.0	Cristobal	Bahia	Ballast		575	152
Eurana	26	16.55	27	6.05	27	14.42	27	15.52	American	Planet Line	400.0	56.2	27.0	Boston	Seattle	General, steel	8,548	7,381	5,595
Agwistone [1]	27	0.40	27	7.20	27	14.45	27	16.50	American	International Shipping Co	499.9	68.1	21.6	New York	Los Angeles	Ballast		10,853	7,804
Robert Dollar	26	19.40	27	8.25	27	16.44	27	17.45	British	Dollar Line	523.0	65 7	20.6	New York	Los Angeles	(6)	5,585	12,370	8,885
Sudawsonco	27	5.15	27	9.50	27	18.03	27	19.19	American	Transmarine Corporation	324.0	46.2	21.5	Newark	San Francisco	General	4,000	3,984	2,612
W. S. Rheem [1]	27	11.25	27	11.35	27	19.00	27	20.10	American	Standard Oil Co	500.0	68.2	23.0	New York	Los Angeles	Ballast		11,224	7,860
Eurana [1]	27	11.40	27	11.55	27	19.46	27	20.56	American	International Mercantile Marine	419.5	56.3	19.0	New York	Los Angeles	Ballast		6,989	4,976
Huallaga	26	18.17	28	6.05	28	13.28	28	16 48	Peruvian	Peruvian Line	360.0	44.7	18.11	Covenas	Callao	General, cattle	895	4,514	2,386
Kent	27	20.05	28	7.15	28	16.20	28	17.35	British	Federal Steam Navigation Co	460.0	62.0	29.4	Liverpool	Bluff	General	8,859	10,503	8,135
Melville Dollar	27	20.35	28	8.15	28	17.04	28	17.55	American	Dollar Line	429.0	55.2	22.4	Baltimore	Los Angeles	General	3,500	7,581	5,519
Aymeric	28	6.20	28	9.50	28	17.17	28	18.55	British	Andrew Weir & Co	400.0	52.5	25.0	Port Arthur	San Pedro	Case oil	6,778	6,076	4,395
Horace Luckenbach	28	7.20	28	9.35	28	17.54	28	17.56	American	Luckenbach Line	445.0	58.0	23.3	Boston	Seattle	General	5,290	8,626	6,290
Santa Malta	26	1.45	28	10.50	28	18.40	28	19.35	American	Pacific Mail Steamship Co	404.5	53.7	23.6	Baltimore	San Francisco	General	4,910	6,766	4,809
Silver Shell [1]	28	7.53	28	12.45	28	19.30	28	20.47	American	Asiatic Petroleum Co	412.6	53.4	22.2	Liverpool	San Francisco	Ballast		6,213	4,343
Denderah	27	19.10	28	13.17	28	20.30	28	21.43	German	Kosmos Line	360.0	51.1	17.4	Hamburg	Champerico	General	968	4,924	3,524

[1] Tanker. [2] Motor schooner. [3] Tug. [4] Oil and 60 tons of paint. [5] General and railroad material. [6] Steel plates, scrap, and general.

Roland	28	11.55	29	6.10	29	13.24	29	14.28	German	Roland Line	360.0	52.0	23.4	Hamburg	Guayaquil	General	4,965	4,791	3,374
Madras City	28	18.30	29	6.12	29	14.14	29	15.15	British	St. Just Steamship Co	383.0	53.6	14.0	Barry	San Francisco	Ballast		5,484	3,948
Cubore [7]	28	19.05	29	7.25	29	15.03	29	16.00	American	Ore Steamship Corporation	450.6	57.2	19.6	Baltimore	Cruz Grande	Ballast		7,956	4,866
Munindies	29	5.05	29	7.35	29	15.55	29	16.48	American	Munson McCormick Line	370.0	53.0	17.6	Baltimore	Seattle	General	3,000	5,525	4 097
Radnor	29	6.25	29	8.17	29	22.17	29	23.41	American	Tampa Interocean Co. (S. B.)	434.3	57.7	24.0	Port Arthur	Honolulu	Case oil, general	6,514	7,993	5,871
Ammon	29	11.40	29	12.10	29	18.35	29	19.30	German	Kosmos Line	438.0	55.0	22.0	Hamburg	Corral	(9)	4,235	7,341	5,200
Oriana	28	18.15	29	13.05	29	20.00	29	21.10	British	Pacific Steam Navigation Co	465.7	56.0	24.1	Liverpool	Valparaiso	General	3,158	8,620	5,345
Malakuta	29	11.04	29	13.40	29	20.30	30	2.25	British	T. & J. Brocklebank, Ltd	470.0	58.0	22.0	Philadelphia	Sydney	General	3,291	7,833	5,457
Essequibo	29	6.50	30	5.50	30	13.46	30	14.53	British	Pacific Steam Navigation Co	450.0	57.0	24.7	New York	Valparaiso	General	2,232	9,099	6,117
Sandon Hall	29	12.37	30	6.55	30	14.42	30	15.45	British	Hall Line	423.3	52.4	23.10	New York	Freemantle	General	5,072	6,691	4,931
Edgar F. Luckenbach	29	17.07	30	8.45	30	15.32	30	16.28	American	Luckenbach Line	425.0	57.3	29.0	New Orleans	Los Angeles	General	8,431	8,568	6,565
Miramar	29	17.55	30	9.25	30	17.20	30	18.28	Chilean	Braun & Blanchard	341.0	46.7	22.0	Newcastle	Valparaiso	Coal	4,555	3,886	2,747
Lake Gunni	30	7.15	30	9.40	30	17.02	30	20.50	American	Steele Steamship Line	253.4	43.8	21.0	New Orleans	San Francisco	General	2,700	2,915	2,005
Jeseric	30	1.00	30	10.40	30	18.59	30	20.08	British	Bank Line	370.0	52.0	28.0	Newport News	Shanghai	General	6,977	5,906	4,443
Iowan	30	6.25	30	12.27	30	19.19	30	20.12	American	American-Hawaiian Line	407.7	53.7	23.0	Philadelphia	Los Angeles	General	5,603	7,091	5,002
Iowa	30	10.20	31	6.00	31	13.47	31	14.50	French	French Line	448.9	53.3	23.3	Havre	Vancouver	Miscellaneous	6,067	7,469	5,020
Vistula [1]	30	15.25	31	7.25	31	14.47	31	15.45	Danzig	Standard Oil Co	500.0	64.0	19.6	Montreal	San Pedro	Ballast		10,604	8,167
Balboa	29	5.35	31	8.25	31	16.47	31	18.00	Colombian	Cia. Costanera Colombiana	190.0	29.0	13.11	Pto. Colombia	Buenaventura	General	407	737	335
Eurybates	30	16.35	31	8.38	31	16.01	31	16.52	British	Alfred Holt & Co	430.0	50.2	24.8	New York	Shanghai	(10)	4,482	6,285	4,492
Tuxpanoil [1]	31	5.00	31	9.47	31	16.52	31	17.43	American	McAllister Brothers (S. B.)	431.0	59.2	19.0	New York	San Pedro	Ballast		7,862	5.049
Memphis City	31	6.12	31	11.00	31	18.38	31	19.46	American	Isthmian Line	424.2	56.2	26.8	Baltimore	Hongkong	General	8,092	7,611	5,450
Cauca	25	13.50	31	11.16	31	19.32	31	20.44	British	Pacific Steam Navigation Co	246.0	35.0	16.5	Cristobal	Champerico	General	1,376	1,589	1,018
Nord [8]			31		31	8.12			Panaman	Trinidad River Fruit Co				Cristobal	Gatun Lake	Ballast		10	10

[1] Tanker. [7] Motor ship. [8] Motor schooner. [9] Cement, iron, chemical, and general. [10] Oil, general, and tobacco.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Felix Taussig	24	16.25	25	6.15	25	14.00	25	14.00	American	Munson Line	395.0	55.1	26.0	Portland	New London	Lumber	6,881	6,594	4,503
H. M. Flagler [1]	24	17.05	25	6.38	25	15.25	25	15.25	American	Standard Oil Co. of N. J.	461.6	60.0	28.0	San Pedro	New York	Crude oil	11,740	8,450	6.089
Skagern	24	22.00	25	7.25	25	17.15	25	18.35	Swedish	Transatlantic Co	405.2	53.7	24.0	Makatea	Stetten	Phosphorus	8,000	5,892	4.147
Acme [1]	25	4.00	25	7.42	25	17.45	25	17.45	American	Standard Transportation Co	435.0	56.0	26.0	Los Angeles	New York	Crude oil	9,575	7,165	4,926
Santa Clara	25	9.15	25	10.32	25	17.57	26	1.13	American	Pacific Mail Steamship Co	404.6	53.9	23.6	San Francisco	Baltimore	General	5,132	6,760	4,950
Agwimars [1]	25	11.25	25	12.09	25	19.35	25	19.35	American	International Shipping Corp	429.3	59.2	26.0	San Pedro	New York	Crude oil	10,623	7,596	5,209
Cardiganshire	25	14.45	26	6.29	26	15.55	26	22.19	British	Royal Mail Steam Packet Co	516.0	62.0	28.0	Vancouver	London	General	9,018	11,420	8,385
Quebec City	25	17.00	26	7.18	26	17.15	26	19.05	British	W. R. Smith & Sons	402 0	54.0	24.6	Vancouver	Hampton R'ds	Wheat	7,557	6,542	4,867
Santa Ana	26	5.30	26	8.09	26	17.10	26	20.40	American	Grace Line	373.9	51.6	25.5	Antofagasta	New York	(14)	4,248	5,576	4,081
Cerro Azul [1]	25	23.00	26	9.08	26	18.15	26	18.15	American	Pan-Amer. Pet. & Transp. Co	430.5	66.0	27.10	San Pedro	New York	Crude oil	12,000	9,298	6,453
Missourian [11]	26	2.30	26	10.13	26	18.20	26	20.35	American	American-Hawaiian Line	461.0	60.0	23.6	Seattle	Boston	General	6,649	8,567	6,020
Killerig [12]	26	6.15	26	10.07	26	18.30	27	6.05	British	Lindsay, Swan, & Hunter	172.0	30.0	12.6	Guayaquil	Cristobal	Ballast		575	152
Scottish Maiden [1]	26	10.15	26	11.10	26	21.30	27	2.10	British	Tankers, Ltd	425.3	57.0	27.6	San Francisco	Lands End	Gasoline	8,978	7,115	4,966
K. I. Luckenbach	25	23.00	26	14.10	26	23.05	26	23.09	American	Luckenbach Line	445.0	56.1	27.0	Seattle	Boston	General	7,000	8,552	6,236
Cincinnati [13]	24	8.00	27	6.26	27	12.05	27	12.05	American	U. S. Navy	550.0	59.0	18.0	Valparaiso	Progresso	Ballast			
Denver [13]			27	7.20	27	15.05	27	18.30	American	U. S. Navy	308.9	44 0		Balboa	Progresso	Ballast			
Murex [1]	26	19.45	27	8.20	27	16.10	27	22.50	British	Anglo-Saxon Petroleum Co	412.2	53.3	25.0	San Pedro	Lands End	Gasoline	7,400	6,279	4,361
Sugillenco	26	21.08	27	9.01	27	17.10	27	17.10	American	Transmarine Corporation	324.0	46.2	22.10	Coos Bay	New York	Lumber	3,400	3,984	2.612
Salacia	26	22.00	27	10.03	27	18.05	28	1.15	British	Donaldson Line, Ltd	410.5	53.2	25.9	Vancouver	United King	Wheat	7,647	6,180	4,476

[1] Tanker. [11] Motor ship [12] Tug. [13] Cruiser. [14] Coffee, nitrate, wool, vanadium, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Izgled	26	22.00	27	11 26	27	20.20	27	22 05	Jugo Slavic	Navigazione Libera	378.0	53.3	22.8	Valparaiso	Dublin	Barley	6,900	5,236	3,987
Samaria	26	22.58	27	12.17	27	20.20	28	6.15	British	Cunard Line	601.5	73.7	25.2	Yokohama	New York	Ballast		21,672	15,675
Victolite [1]	27	4.00	27	13.14	27	21.55	27	21.55	British	Imperial Oil Co., Ltd	500.4	68.2	29.0	Talara, Peru	Charleston	Peruvian oil	15,200	11.049	7,732
Arana	27	10.00	27	14.30	27	23.22	28	20.20	British	Pacific Steam Navigation Co	303 0	43.0	17.6	Callao	New York	General	1,381	2,851	1,697
Bethore	27	16 00	27	16.55	28	13.45	28	13.45	American	Ore Steamship Corporation	500.3	72.2	34.0	Cruz Grande	New York	Iron ore	19,800	15.476	4,354
Acajutla	27	18.35	28	6 26	28	14.50			British	Pacific Steam Navigation Co	215.7	32.5	16.8	Champerico	Cristobal	([15])	1,015	1,273	706
Willfaro	28	5 00	28	7 15	28	16.05	28	16.05	American	Williams Steamship Co	386.8	52.2	23.6	Seattle	Baltimore	Lumber, general	4,395	5,684	4,113
Homer City	28	4 00	28	8.00	28	17.40	28	18.30	British	St. Just Steamship Co	384.9	53.0	22.3	Vancouver	Europe	Wheat	7,122	5,517	3,953
Ucayali	28	4 55	28	13.16	28	20.08			Peruvian	Peruvian Line	374.7	46.7	20.0	Callao	Cristobal	General	1,518	4,466	2,405
Byron D. Benson [1]	28	9.05	28	14 30	28	22.05	28	22 05	American	Tidewater Oil Co	465.4	60.2	26.8	San Pedro	New York	Crude oil	11,497	8,546	6,095
Hanley	28	13.15	29	6.36	29	13.05	29	15.10	American	Hanley Steamship Co	440 0	56.0	26 0	Everett	Baltimore	Lumber	8,820	8,301	5,995
Anomia [1]	26	20.15	29	7.37	29	16.35	29	16 35	British	Anglo-Saxon Petroleum Co	400.6	52.3		Balboa	Tampico	Ballast		6,097	4,438
H. H. Rogers [1]	28	19.00	29	8.08	29	18.00	29	18.00	American	Standard Oil Co. of N. J	500.0	68.0	29.6	San Pedro	Montreal	Crude oil	15,000	10,333	7,475
Rapot	28	21.00	29	8.59	29	17.07	29	17.50	German	Roland Line	393.0	51.3	25.2	Corral, Chile	Hamburg	General	7,053	6,583	4,660
Benledi	29	7.00	29	10.05	29	18.40	29	22.35	British	Kerr, Gifford	390.0	46.1	23.0	Portland	Queenstown	Wheat	5,414	4,179	3,067
Dundrennam	28	20.00	29	11.43	29	19.20	29	20.30	British	Andrew Weir & Co	385.3	49.7	23.7	Portland	Sharpness	Wheat	5,934	4,703	3,478
Tustem [1]	29	10.30	39	13.10	29	21.10	29	21.10	American	Atlantic Refining Co	425.0	57.2	29.0	Los Angeles	Philadelphia	Crude oil	10,000	7,204	4,768
General G. W. Getty			29	6.15	29				American	U. S. Army	98.0	22.0		Balboa	Pedro Miguel				
Suruga	29	19.10	30	6.16	30	14.35	30	16.30	American	Barber Line	375.2	52.0	23.0	Vancouver	Boston	Lumber	5,000	5,177	3,877
Frances E. Powell [1]	29	20.30	30	7.19	30	15.30	30	15.30	American	Atlantic Refining Co	431.0	59.2	26.0	San Pedro	Philadelphia	Gasoline	9,500	7,860	5,101
Scottish Castle	29	22.00	30	7.45	30	16.45	30	19.25	British	Tankers, Ltd	440.0	56.6	27.0	San Pedro	Lands End	Gasoline	9,082	7,532	5,162
Algonquin [1]	30	10.55	30	11.43	30	19.40	30	19.40	American	Standard Transportation Co	435.0	56.0	26.6	San Pedro	New York	Crude petroleum	9,465	7,602	5,737
La Mina									American	F. C. Gibson				Balboa	Gatun	Ballast			
Sunland	30	14.25	31	6.12	31	14.00	31	14.00	British	Sun Shipping Co	365.0	51.5	24.6	Vancouver	Falmouth	Lumber, lead	6,774	5,278	3,836
Romagne	30	20.45	31	6.47	31	15.05	31	15.05	American	Lind Navigation Co	251.0	43.7	21.0	Grays Harbor	New York	Lumber	2,650	2,651	1,619
Kellerwald	31	1.00	31	7.16	31	15.35	31	18.30	German	Hamburg-American Line	398.0	53.11	25.0	Taltal	English chan.	([16])	7,165	6,545	4,483
Howick Hall	31	3.00	31	7.40	31	16.05	31	17.00	American	Isthmian Steamship Line	400.8	51.8	23.3	San Francisco	Baltimore	General	6,400	6,095	4,351
Radames	31	6.00	31	8.20	31	17.45	31	23.00	German	Kosmos Line	380.8	47.0	22.6	Corral	Hamburg	General	5,140	4,912	3,428
Cecil County [1]	29	8.20	31	8.58	31	18.52	31	21.55	American	Walker & Daly	431.0	59.2	25.0	San Pedro	New York	Crude oil	9,474	8,097	5,330
Shreveport [1]	31	7.00	31	9.29	31	17.50	31	17.50	American	Cities Service Transport Co	435.0	56.0	29.6	San Pedro	Boston	Crude oil	10,890	7,411	5,109
Canadian Skirmisher	31	7.15	31	10.12	31	19.30	1	0.50	British	Canadian Government	400.0	52.4	24.6	Vancouver	Avonmouth	Lumber, grain	6,732	6,174	4,323
Sunugenteo	31	8.45	31	10.27	31	19.40	31	19.40	American	Transmarine Corporation	324.0	46.2	23.0	San Pedro	New York	Lumber, general	3,468	3,984	2,612
Zan Juan	31	4.47	31	11.27	31	20.00			American	Pacific Mail Steamship Co	283.0	37.0	18.0	San Francisco	Cristobal	([17])	1,365	2,379	1,593
Cathwood [1]	31	12.17	31	13.05	31	21.15	1	3.05	American	Union Oil Co. of California	435.0	56.0	28.6	Los Angeles	New York	Crude oil	10,100	7,482	5,143
Cape Cod [1]	31	13.00	31	13.44	31	22.40	1	4.20	American	Pure Oil Co	425.0	57.0	27.0	San Pedro	New York	Crude oil	10,177	7,218	5,184

[1] Tanker.

[15] Coffee, sugar, bullion, and general.

[16] Nitrate of soda, cocoa, hides, and ivory nuts.

[17] Coffee, hides, and logs.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 630, column 2.)

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 3, 1924.

The Hydrographic Office's May 17, 1924, Notice to Mariners contained the following:

"On April 16, 1924, the U. S. S. *S–23* grounded on an uncharted shoal about 875 yards 173° from Water Cay Point, Tiger Channel, entrance to Chiriqui Lagoon. An examination of locality revealed a shoal, having a depth of 2 fathoms, about 600 yards southward of the small islet off Water Cay Point.

"This shoal has been marked with a buoy.

"Approximate position 9° 08′ 30″ N., 81° 59′ 50″ W."

JAY J. MORROW,
Governor.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective June 5, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.225
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.35
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.40
Oil, engine, gas, extra heavy, in cases	Gal.	.54
Oil, engine, gas, extra heavy, in drums	Gal.	.35
Oil, kerosene, in drums	Gal.	.20
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paid, lead, white, in oil	Lb.	.13
Paint, zinc, white, dry	Lb.	.14
Paint, zinc, white, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4, of the tariff.

Official Circular.

Appointment.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., May 28, 1924.

To all concerned—Effective May 29, 1924, and during the leave period of Commander R. W. Ryden, U. S. N., Commander Ross P. Schlabach, U. S. N., will be Acting Superintendent, Mechanical Division. Upon termination of leave period of Commander Ryden, June 12, 1924, Commander Schlabach will be Superintendent, Mechanical Division.

JAY J. MORROW,
Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line. The Pacific Mail and Chilean Line charge $6 for the trip, the others $10. The several services together afford about 4 transits of the Canal each way every week.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal. Washington, D. C.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 628.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
May 25	Heredia	United Fruit Co	New Orleans via Habana.
May 25	Toloa	United Fruit Co	Port Limon.
May 27	Calamares	United Fruit Co	New York via Habana.
May 27	Turrialba	United Fruit Co	New Orleans via Habana.
May 27	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.
May 28	Heredia	United Fruit Co	Bocas del Toro.
May 28	Metapan	United Fruit Co	New York via Kingston.
May 29	Santa Marta	United Fruit Co	Colombian ports.
May 30	Oranje Nassau	Royal Netherlands W. I. Mail	Port Limon.
May 31	Bayano	Elders & Fyffes, Ltd.	Port Limon.
May 31	Ulysses and Darien [2]	Panama Railroad Steamship Line	Norfolk.

[2] Barge.

*DEPARTURES.

Date.	Vessel.	Line.	For—
May 25	Heredia	United Fruit Co	Bocas del Toro.
May 25	Toloa	United Fruit Co	New York via Habana.
May 28	Calamares	United Fruit Co	Port Limon.
May 28	Oranje Nassau	Royal Netherlands W. I. Mail	Port Limon.
May 28	Heredia	United Fruit Co	New Orleans via Habana.
May 29	Metapan	United Fruit Co	Colombian ports.
May 29	Turrialba	United Fruit Co	New Orleans via wayports.
May 29	Santa Marta	United Fruit Co	New York via Kingston.
May 29	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
May 31	Oranje Nassau	Royal Netherlands W. I. Mail	Amsterdam via wayports.
May 31	Bayano	Elders & Fyffes, Ltd.	Bristol via Kingston.

PORT OF BALBOA.

*ARRIVALS.

Date.	Vessel.	Line.	From—
May 29	Lompoc	Union Oil Co	Port San Luis.

*DEPARTURES.

Date.	Vessel.	Line.	For—
May 31	Lompoc	Union Oil Co	Port San Luis.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Cargoes in Excess of 10,000 Tons During May, 1924.

During the month of May, 1924, 60 vessels carrying 10,000 or more tons of cargo transited the Canal. Fifty-seven were from the Pacific to the Atlantic, and 3 from Atlantic to Pacific. Forty-eight of the 60 were tankships carrying mineral oils.

In addition to these, the *Resolute*, of 13,028 tons, and the *Samaria*, of 15,675 net tons, Panama Canal measurement, passed from the Pacific to the Atlantic, without cargo, carrying tourists on a trip around the world.

During the month there were 417 total commercial transits of the Canal, of which 65 were in ballast, leaving 352 laden vessels. Of the 352 laden vessels making the transit over 1 in 6 carried more than 10,000 tons. The average cargo carried during the month by all vessels was 5,645 tons, and the average for laden vessels only was 6,688 tons.

In the tabulation below are given the kind of cargo, number, Panama Canal net, tolls, and tons of cargo carried by the 62 vessels above:

Commodity.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Cargo.
Mineral oils	48	313,417	$321,996.00	601,686
Iron ore	6	32,639	37,308.20	100,900
Railroad material and general	1	8,217	8,416.25	12,500
Lumber and general	1	8,762	8,533.75	12,550
Wheat and general	1	6,927	6,852.50	12,500
Sugar and general	1	6,216	7,366.25	10,462
General	2	13,820	13,612.50	20,952
Passengers	2	28,703	23,168.75	.....
Totals	62	418,701	427,254.20	771,550

The average tons of cargo carried by the 60 cargo carriers was 12,859, and the average tolls paid by all 62 was $6,891.20.

Increase in Size of Ships Using the Panama Canal.

The size of vessels using the Panama Canal and the amount of cargo carried by each are on the increase, as may be seen from the following table giving various averages for the calendar years, 1921, 1922, and 1923, with the per cent of increase for 1923 over 1921:

	1921.	1922.	1923.	Per cent of increase, 1923 over 1921.
Average length ..... feet	374.3	383.6	408.1	9.0
Average beam ..... feet	50.8	51.3	54.2	6.7
Average draft ..... feet	21.3	21.9	22.7	6.6
Average U. S. equivalent net ..... tons	3,343	3,462	3,965	18.6
Average Panama Canal net ..... tons	4,109	4,335	4,911	19.5
Average registered gross ..... tons	5,193	5,444	6,285	21.0
Average registered net ..... tons	3,311	3,410	3,957	19.5
Average tolls	$4,042.80	$4,195.33	$4,559.63	12.8
Average cargo carried (including vessels in ballast) ..... tons	3,847	4,575	4,995	29.8
Average cargo carried, laden vessels only ..... tons	4,335	5,013	6,420	47.4

It will be noted that the average amount of cargo carried shows much the largest per cent of increase.

Overhaul of Gatun Locks.

On page 324 of the current volume of THE PANAMA CANAL RECORD, an article was published concerning the preliminary work that had been completed and the plans that had been formulated for the triennial overhaul during February and March, 1924, of the locks at Gatun.

It was estimated that this overhaul would require 46 days, including an interval of 6 days from the time work on one chamber was completed until the opposite chamber was taken out of service.

The work was completed in a few hours less than the time estimated. The west chamber was out of commission for 21 days and 2 hours—9.35 a. m. February 4 to 11.35 a. m. February 25. Change over interval was 5 days and 18 hours—11.35 a. m. February 25 to 7 a. m. March 2. The east chamber was out of commission for 18 days and 13½ hours—7 a. m. March 3 to 8.30 p. m. March 21. The overhaul force did not work on Sunday, March 2, which makes the actual time worked during the overhaul 45 days 9½ hours.

The force employed included 21 men from the regular operating personnel, 51 mechanics employed in the United States for temporary service, 19 employed by transfer or recruited locally, and a force of laborers which at its maximum numbered 819 men.

The cost of the overhaul to the closing of the March accounts was $255,406.26, and it is estimated that when all of the bills are in it will total $275,000.

The work included the cleaning and painting of the gates and exposed metal work, and the renewal or repair of all worn valves, sills, and other parts showing wear or deterioration. All ships were put through on day of arrival throughout the overhaul.

Tanker Traffic Through the Panama Canal, May, 1924.

During the month of May, 1924, 121 tankships transited the Canal, carrying an aggregate of 810,410 tons of cargo. This is an increase of 3 transits and 210,824 tons of cargo as compared with April, 1924; as compared with March, 1924, it is a decrease of 11 transits and 6,928 tons of cargo. As compared with May, 1923, it is a decrease of 52 transits and 226,808 tons of cargo.

The total number of commercial transits through the Canal in May, 1924, was 417, as compared with 419 in May, 1923, a decrease of 2; total cargo through the Canal in May, 1924, was 2,353,986 long tons, as compared with 2,265,083 in May, 1923, an increase of 88,903 tons. These figures compared with the decrease in tanker traffic shown above indicate that increase in other traffic is almost equalling the lessening of tanker traffic.

The number of tankships through the Canal, Atlantic to Pacific, during May, 1924, was 51, 15 less than April, 1924, 12 less than March, 1924, 40 less than May, 1923, and much less than any month since May, 1923. In as much as a very large per cent of this traffic is between the east and west coasts of the United States and the vessels westbound are in ballast, this foreshadows a further lessening of the traffic which has up to this time been largely balanced by the increase in other traffic.

Tanker transits in May, 1924, comprised about 29 per cent of the total transits, about 35 per cent of the total tonnage, Panama Canal measurement, paid about 35 per cent of the tolls collected, and carried about 34½ per cent of the total cargo through the Canal during the month.

The following tabulation shows the number, aggregate net tonnage, Panama Canal measurement, tolls, and cargo of tankships through the Canal during May, 1924, segregated by nationality of vessels and direction of transit, together with the totals for the two preceding months and for May, 1923:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	9	53,932	$41,906.79	16,939
Danzig	1	8,167	5,880.24	.....
Spanish	1	4,470	3,218.40	.....
United States	40	244,648	177,643.66	11,130
Totals, May, 1924	51	311,217	248,649.09	28,069
Totals, April, 1924	66	392,710	292,044.65	31,247
Totals, March, 1924	63	382,076	278,288.99	27,281
Totals, May, 1923	91	520,101	387,037.30	56,356
Pacific to Atlantic.				
British	14	80,152	87,277.21	143,300
Danzig	2	16,083	14,897.50	27,434
Norwegian	1	5,520	6,546.25	8,477
United States	53	315,603	324,984.35	603,130
Totals, May, 1924	70	417,358	433,705.31	782,341
Totals, April, 1924	52	315,835	324,023.63	568,339
Totals, March, 1924	69	427,365	442,500.33	790,057
Totals, May, 1923	82	497,084	519,694.61	980,862

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the figures for the two preceding months:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
May, 1924	42	266,124	$192,117.47	.....
April, 1924	56	338,481	247,212.52	8,529
March, 1924	55	337,431	240,151.65	.....
From Los Angeles.				
May, 1924	57	347,224	357,691.85	657,144
April, 1924	42	254,414	261,941.35	475,272
March, 1924	62	385,190	397,957.31	720,716

Medical Service to Ships.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., June 3, 1924.

MEMORANDUM FOR STEAMSHIP AGENTS:

Some confusion is being caused in Canal traffic by Masters and Agents ordering medical service direct instead of through the offices of the Port Captains. The effect of this is that doctors are requested to come aboard at points where the transit plans of the Port Captains will not permit this to be done.

Please inform masters and principals that doctors should be ordered through Port Captains, who will see that they come aboard at points which will not interfere with transit plans; if a doctor is urgently needed the request should so state.

A. W. HINDS,
Marine Superintendent.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 7, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Venezuela	31	9.55	1	6.18	1	13.24	1	21.25	American	Pacific Mail Steamship Co	380.0	48.7	23.3	New York	San Francisco	General	2,217	6,033	4,353
Imlay [1]	31	22.03	1	7.10	1	14.39	1	15.45	American	C. D. Mallory & Co	425.0	57.0	19.8	Baton Rouge	San Pedro	Ballast		7,218	4,959
Atlantic	1	6.50	1	8.25	1	16.02	1	20.08	American	Argonaut Steamship Line	410.5	54.3	24.0	Baltimore	Los Angeles	(4)	7,569	6,567	4,917
Lady Alexandra	1	9.08	1	10.50	1	17.38	2	8.52	British	J. H. Wilford & Co	225.0	40.0	9.0	Montrose	Vancouver	Ballast		1,603	892
H. M. Storey [1]	1	11.05	1	11.15	1	18.09	1	18.55	American	Standard Oil Co	500.0	68.0	20.0	New York	Los Angeles	Ballast		11,224	7,849
Willhilo	1	11.17	1	12.30	1	19.05	1	20.08	American	Williams Steamship Co	435.0	57.6	21.0	New York	Seattle	General	4,867	7,983	5,882
Lieut. David Putnam [2]			1		1	8.13			American	U. S. Army				Cristobal	Gatun	Towing barge			
Aladdin [1]	1	17.05	2	6.20	2	13.50	2	14.58	American	Standard Transportation Co	435.0	56.2	19.0	New York	Los Angeles	Ballast		7,408	5,112
Hans Hemsoth	1	18.25	2	7.05	2	15.34	3	18.10	German	W. Hemsoth	407.0	54.0	25.3	Glasgow	Los Angeles	(5)	8,339	6,636	4,888
Agwisea [1]	2	6.15	2	8.05	2	15.32	2	16.34	American	International Shipping Co	468.3	62.7	21.0	New York	Los Angeles	Ballast		9,802	6,961
Albertolite [1]	2	10.30	2	10.45	2	17.30	2	21.18	British	Imperial Oil Co	463.0	60.2	23.0	Charleston	San Pedro	Ballast		8,491	5,879
Dixie Arrow [1]	2	12.00	2	12.05	2	19.30	2	20.30	American	Standard Transportation Co	468.3	62.7	19.0	New York	Los Angeles	Ballast		9,744	7,140
Nordlys	2	13.36	2	13.45	2	22.10	2	23.45	Danish	Wessel Duval & Co	362.0	51.5	24.0	Newport News	Paita	Coal	5,679	4,932	3,468
F. Q. Barstow [1]	2	10.20	3	6.20	3	13.39	3	15.07	American	Standard Oil Co	500.0	68.2	21.0	Montreal	San Pedro	Ballast		10,530	7,604
Elmpark	2	23.25	3	7.15	3	14.49	3	16.50	British	Denholm Line	409.0	53.5	17.0	Cardiff	Iquique	Ballast		6,565	4,728
W. C. Teagle [1]	3	8.15	3	8.30	3	15.59	3	17.11	American	Standard Oil Co	499.1	68.2½	20.0	Montreal	San Pedro	Ballast		10,991	7,986
Samuel Q. Brown [1]	3	9.15	3	9.45	3	16.42	3	17.45	American	Tidewater Oil Co	439.0	58.2	20.0	New York	San Pedro	Ballast		7,333	5,246
Nirvana	3	12.35	3	13.25	3	20.00	4	4.40	British	Federal Line	450.5	56.5	24.0	Cardiff	Brisbane	General	4,835	7,699	5,888
Phoebus [1]	2	9.05	3	13.45	3	20.50	5	13.47	German	Standard Oil Co	499.0	64.0	19.0	Baton Rouge	Talara	(6)		10,660	7,873
Sciota [3]			3	7.50	3	14.49	5	22.51	American	U. S. Navy	149.3	30.0		Cristobal	Balboa	Ballast			
Kenuta	3	8.31	4	6.00	4	13.41	4	15.15	British	Pacific Steam Navigation Co	412.0	52.0	23.7	Hull	Corral	General	5,471	6,420	4,704
Paul Luckenbach	4	7.35	4	9.07	4	15.42	4	16.40	American	Luckenbach Line	471.1	59.2	23.3	New York	San Francisco	General	8,000	9,027	6,539
Baron Cawdor	4	1.40	4	9.55	4	17.51	4	18.53	British	Hogarth & Sons	422.5	56.2	24.9	Newcastle	Noumea	Coke	5,500	6,750	4,849
F. H. Hillman [1]	4	13.20	4	13.30	4	19.59	5	2.10	American	Standard Oil Co	500.0	62.8	18.6	London	San Pedro	Ballast		11,225	7,913
Santa Teresa	4	16.50	5	6.15	5	13.06	5	16.35	American	Grace Line	360.2	51.6	23.10	New York	Talcahuano	General	2,593	5,726	4,086
Carolinas	5	5.40	5	6.25	5	13.45	5	14.49	American	Carolinas Co	333.8	48.0	22.6	Galveston	Oakland	Sulphur	4,950	4,171	2,827
Ucayali	28	20.00	5	9.25	5	15.47	5	21.08	Peruvian	Peruvian Line	374.7	46.0	19.3	Cristobal	Callao	General	555	4,466	2,405
Carolyn	4	8.17	5	9.40	5	16.51	5	18.07	American	Grace Line	313.6	46.1	16.9	New York	Taltal	General	1,988	3,644	2,566
Haarlem	4	22.11	5	11.48	5	18.43	5	19.50	Dutch	Royal Netherlands W. I. Mail	361.5	49.10	22.3	Hamburg	Guayaquil	General	5,208	4,759	3,660
Billiton	5	13.40	5	13.50	5	20.23	5	21.40	Dutch	Netherland Steamship Co	395.0	51.3	15.5	Amsterdam	Antofogasta	Ballast		6,191	4,359
Remuera	5	17.10	6	6.04	6	14.07	6	23.48	British	New Zealand Shipping Co	485.0	62.3	24.0	London	Auckland	General	4,568	11,717	8,751
Moerdijk	5	2.45	6	6.15	6	14.45	6	15.40	Dutch	Holland-American Line	475.0	61.0	25.10	Rotterdam	Vancouver	General	8,789	9,165	7,056
Mineola	5	13.25	6	7.00	6	15.41	6	21.30	American	N. O. & S. A. S. S. Co	298.6	40.0	15.9	New Orleans	Taleahuano	General	1,020	2,835	1,805
Jan Van Nassau	5	5.50	6	7.20	6	15.30	7	6.21	Dutch	Royal Netherlands W. I. Mail	346.2	44.2	18.0	Hamburg	Guayaquil	General	1,826	3,819	2,632
Vinita	5	17.58	6	7.35	6	15.49	6	16.45	American	United-American Line	410.5	54.0	19.6	New York	Los Angeles	General	3,000	6,572	4,910

[1] Tanker. [2] Launch. [3] Tug. [4] Steel, paper, and general. [5] Pig iron, clay, and coke. [6] 1,168,730 gallons of gasoline.

President Adams	6	7.15	6	8.25	6	16.26	6	20.22	American	Dollar Line	502.1	62.2	26.3	New York	San Francisco	General	4,500	12,057	8,457
Krakatau	5	18.45	6	8.25	6	16.44	6	19.10	Dutch	Netherlands Steamship Co	430.0	55.0	15.7	Amsterdam	Arica	Ballast		7,019	4,839
Baltic [1]	5	21.05	6	9.40	6	17.22	6	18.28	Danzig	Standard Oil Co	508.0	64.0	18.0	Montreal	San Pedro	Ballast		10,550	7,916
Kendal Castle	6	6.30	6	9.40	6	18,06	6	19.10	British	James Chambers & Co	418.0	57.0	23 5	Norfolk	Yokohama	General	7,000	6,773	4,973
Alden Anderson [1]	6	7.00	6	10.40	6	18.21	6	23.06	American	Associated Oil Co	426.9	54.6	23.0	Fall River	San Francisco	Ballast		7,340	5,236
Lebore	6	10.02	6	11.10	6	19.38	6	21.45	American	Ore Steamship Co	549.0	72.0	23.0	New York	Cruz Grande	Ballast		14,325	4,635
San Juan	31	20.04	6	11.55	6	19.58	7	2.15	American	Pacific Mail Steamship Co	283.0	37.0	17.3	Cristobal	San Francisco	General	1,372	2,379	1,593
Panaman	6	7.45	6	12.00	6	19.45	6	20.27	American	American-Hawaiian Line	407.7	53.7	24.3	New York	Los Angeles	General	6,000	7,098	5,029
Susherico	6	6.10	6	13.05	6	21.26	6	22.41	American	Transmarine Corporation	324.0	46.2	23.0	Newark	San Francisco	General	4,300	3,984	2,612
Suportco	6	9.50	6	13.10	6	22.24			American	Transmarine Corporation	324.0	46.2	22.0	Newark	San Francisco	General	3,815	3,984	2,612
Montrolite [1]	6	14.12	7	6.17	7	13.57	7	17.05	British	Imperial Oil Co	419.0	57.3	26.6	Tampico	Antofogasta	Crude petroleum	8,600	7,378	4,752
La Brea [1]	6	20.05	7	7.00	7	14.43	7	17 05	American	Union Oil Co	435.0	56.2	22.0	Philadelphia	Los Angeles	Ballast		7,150	4,765
East Wind	7	5.37	7	8.17	7	16.35	7	18.15	American	U. S. & A. Line (S. B.)	383.4	51.0	25.0	New York	Adelaide	General, case oil	7,038	5,966	4,442
D. G. Scofield [1]	7	6.30	7	9.50	7	16.49	7	18.00	American	Standard Oil Co	439.5	58.0	21.0	New York	San Pedro	Ballast		8,698	6,013
Atlantic Sun [1]	7	13.05	7	13.15	7	19.48	8	0.27	American	Sun Oil Co	429.3	59.2	18.0	Christiania	Los Angeles	Ballast		7,568	5,283
Watertown [1]	7	11.00	7	11.15	7	18.05	7	22.45	American	Cities Service Transportation Co	416.9	56.2	18.0	New York	San Pedro	Ballast		6,706	4,766

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Kilnsea	31	14.00	1	6.15	1	14.45	1	16.25	British	W. Brown, Atkinson & Co	375.0	51.2	25.4	Vancouver	Gibraltar	Wheat	7,588	5,390	3,873
Dorothy Luckenbach	31	17.45	1	6.45	1	15.25	1	15 25	American	Luckenbach Line	449.0	60.0	27.0	Seattle	Boston	Lumber, general	8,000	9,393	6,861
Tulsagus [1]	1	1.15	1	7.26	1	16.25	1	19.15	American	McAllister Brothers	430.0	59.2	26.5	San Pedro	New York	Crude oil	9,630	7,817	5,049
Ashbee [7]	1	6.00	1	7.54	1	16.40	1	22.40	American	Grace Line	333.8	48.0	16.7	Callao	New York	General	1,541	4,101	2,687
San Taburcio [1]	1	6.00	1	11.28	1	18.45	1	18.45	British	Anglo-Mexican Petroleum Co	413.0	53.5	24.4	San Pedro	London	Gasoline, bulk	7,366	5,997	4,069
Eastern City	31	8.00	1	13.18	1	22.45	2	0.38	British	Sir W. R. Smith & Sons	400.0	53.0	25.6	Vancouver	Hampton R'ds	Wheat	8,080	6,024	4,361
Marore [1]	2	4.40	2	5.49	2	15.30	2	15.30	American	Ore Steamship Corporation	550.3	72.2	34.6	Cruz Grande	New York	Iron ore	19,500	15,551	4,297
Gargoyle [1]	2	5.22	2	7.49	2	16.00	2	16.00	American	Vacuum Oil Co	425.0	57.2	27.8	San Francisco	Paulsboro	([8])	9,561	7,510	4,989
Greylock	2	8.52	2	9.41	2	17.10	2	18.25	American	Seas Shipping Co	430.0	54.3	24.0	Vancouver	New York	([9])	7,500	7,946	5,698
Ruahine	2	3.00	2	12.12	2	19.40	2	19.40	British	New Zealand Shipping Co	480.6	60.3	25.8	Wellington	England	([10])	4,422	11,292	8,266
Jamaica	2	10.52	2	12.45	2	21.13			British	Pacific Steam Navigation Co	220.0	33.10	12.8	Champerico	Cristobal	General	765	1,187	622
Charles Pratt [1]	2	14.35	2	15.16	2	23.10	2	23.10	American	Standard Oil Co. of New Jersey	500.0	68.0	29.0	San Pedro	New York	Crude oil	15,400	10,313	7,492
Ecuador	2	6.48	3	6.16	3	13.42	4	17.53	American	Pacific Mail Steamship Co	380.6	48.7	24.7	San Francisco	Norfolk	General	2,750	5,926	4,178
Edgemoor	2	15.30	3	6.51	3	14.45	4	6.12	American	U. S. Army	409.6	54.2	12.6	San Francisco	Brooklyn	([11])	661	7,486	5,852
Agwibay [1]	2	17.05	3	7.02	3	15.10	3	15.10	American	Agwi Steamship Co	468.3	62.7	29.0	San Pedro	New York	Crude oil	12,000	9,776	6,903
Robert E. Hopkins [1]	2	16 10	3	7.47	3	17.00	3	17.00	American	Tidewater Oil Co. of N. Y.	424.4	58.2	27.0	San Pedro	New York	Crude oil	10,000	7,333	5,244
Cedar Branch	2	18.45	3	8.11	3	18.05	3	19.10	British	Nautilus Steamship Co., Ltd	390.0	51.0	22.0	Corral	Liverpool	Nitrate, general	5,314	4,927	3,597
Walter Jennings [1]	2	19.30	3	8.38	3	18.15	3	18.15	American	Standard Oil Co. of N. J.	499.3	68.1	30.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
Toco [1]	2	21.50	3	9.10	3	18.40	3	21.55	British	Chile Steamship Co	440.8	56 0	14.0	Tocopilla	Tampico	Ballast		7,693	4,831
Strassa [7]	2	21.30	3	9.48	3	19.15	3	19.15	Swedish	K. R. Melin	393.6	53.4	25.0	Portland	Dublin	Wheat	6,009	6,282	4,322
District of Columbia [1]	3	6.15	3	10.35	3	19.51	3	19.51	American	Walker & Daly	431.0	59.2	26.0	San Pedro	New York	([12])	10,000	8,097	5,431
Mobile City	3	10.00	3	10.54	3	20.50	4	4.10	American	Isthmian Steamship Line	395.8	55.0	26.6	Seattle	Glasgow	Lumber, general	7,970	7,330	5,241
Ohioan	2	23.30	3	13.58	3	21.20	3	21.20	American	American-Hawaiian Line	407.7	52.7	22.9	Seattle	Boston	General	4,377	7,112	4,896

[1] Tanker. [7] Motor ship. [8] Lubricating oil in bulk. [9] Canned goods and lumber. [10] Cold storage and general. [11] Army and Navy stores. [12] Crude oil in bulk.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Almeda [1]	3	15.15	4	6.15	4	14.00	4	14.00	American	United-American Line	430.0	58.2	24.0	Los Angeles	Fall River	Tops oil	10,751	7,425	5,097
Tsuyama Maru	3	17.40	4	7.16	4	14.30	4	14.30	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.0	Yokohama	New York	General	7,610		
Kroonland	4	4.15	4	8.11	4	16.20	4	23.05	American	Panama-Pacific Line	560.0	60.0	24.6	San Francisco	New York	([15])	2,888	13,514	9,127
Ebro	4	4.30	4	9 13	4	18.35	5	3.30	British	Pacific Steam Navigation Co	450.3	57.8	26.0	Talcahuana	New York	([16])	3,484	9,151	6,227
Brielle	4	3.00	4	10 10	4	18 50	6	9.58	Dutch	Royal Netherlands W. I. Mail	400.0	58.0	26.0	San Antonio	London [14]	General	7,590	7,322	5,254
Colin H. Livingstone	3	14 25	4	11.03	4	20.45	4	20.45	American	Barber Line	402.6	53.2	27.0	Pulupandan	Boston	Sugar	8,000	6,586	4,855
Firmore	4	11.03	4	12.35	4	22.30	5	5.53	American	Ore Steamship Co	443.1	57.2	33.0	Cruz Grande	Baltimore	Ore	11,900	7,847	5,185
James McGee [1]	4	12.00	4	13.14	4	23.10	4	23.10	American	Standard Oil Co. of N. J.	499.1	68.2	31.0	San Pedro	New York	Crude oil	14,487	10,964	7,909
Trevithick	4	18.35	5	6.11	5	15.00	5	16.25	British	Hain Steamship Co	469.8	58.1	26.0	Vancouver	Hampton R'ds	Wheat	10,309	8,772	6,461
Honduras	5	8 10	5	9.15	5	17.25	6	9.00	French	French Line	389.9	51.3	26.0	Talcahuana	Havre	General	6,773	6,020	4,363
Eagle	5	12.45	5	13.25	5	20.10	5	20.10	American	Standard Transportation Co	410.0	56.0	26.6	Portland	Baltimore	Lumber, general	7,565	8,243	6,266
Siam	5	12.30	5	14.10	5	21.25	6	0.05	Danish	East Asiatic Co., Ltd	410.0	55.2	28.0	Vancouver	Copenhagen	([17])	8,888	7,063	5,303
San Patricio [1]	5	16.55	6	6.12	6	16.00	6	16.00	British	Anglo-Mexican Petroleum Co	530.0	66.6	26.0	San Pedro	Tampico	Crude oil	15,455	11,886	8,664
Commercial Traveller	5	17.40	6	6.45	6	17.10	7	17.10	American	Moore & McCormack, Inc	380.3	53.1	24.0	Grays Harbor	New York	([18])	5,779	5,657	4,247
Tritonia	5	19.00	6	7.12	6	18.20	6	20.10	British	Donaldson Brothers	400.5	52.3	23.6	Esquimalt	New York	Lumber	5,726	5,984	4,287
Eastern Moon	5	19.10	6	7 32	6	18.12	6	18.12	American	U. S. & A. Lines	304.8	51.2	16.10	Sydney	New York	([19])	300	5,904	4,321
Ethelfreda	5	20.00	6	8.11	6	19.05	6	19.05	British	Harrowing Steamship Co	400.0	52.3	23.0	Victoria, B. C.	Boston	Lumber	5,800	6,153	4,415
Calgarolite [1]	6	4.21	6	9.05	6	20.55	6	20.55	Canadian	Imperial Oil Co., Ltd	483.3	60.2	26.6	Talara, Peru	Charleston	Crude naphtha	11,756	8,491	6,060
Hagan [1]	5	20.30	6	9.17	6	19.25	6	20.45	American	Struthers & Barry	416.9	56.2	25.0	San Francisco	Fall River	Crude oil	8,700	6,728	4,727
Santa Paula	6	6.05	6	9.45	6	20.16	7	1.20	American	Pacific Mail Steamship Co	406.0	53.9	16.6	San Francisco	New York	General	1,300	6,756	4,775
Crowl [13]									American	U. S. Army				Balboa	Gamboa				
Mahana	6	6 32	6	10.24	6	22.30	7	8.10	British	Shaw, Savill, & Albion	500.0	63.3	26.0	Wellington	London	Frozen, general	6,696	12,151	8,727
Lena Luckenbach	6	15.20	7	6.18	7	13.30	7	13.30	American	Luckenbach Line	425.0	53.8	20.0	Seattle	New Orleans	General	8,000	7,217	5,295
Almagro	6	13.35	7	7.18	7	14.35	7	22.20	British	Pacific Steam Navigation Co	303.4	43.0	15.6	Callao	New York	General	977	2,878	1,714
Canadian Pioneer	6	16.45	7	8.20	7	15.15	7	15.50	Canadian	Canadian Govt. Mer. Marine	400.4	52.4	17.0	Brisbane	Montreal	General	1,400	5,877	4,070
Santa Rosalia	6	20.20	7	9.31	7	17.45	7	19.00	American	Isthmian Lines	406.0	52.6	24.7	Caleta Buena	Charleston	Nitrate of soda	8,000	5,900	4,443
Commercial Spirit	7	3.45	7	9.40	7	17.50	7	17.50	American	Moore & McCormack, Inc	380.4	53.1	22.10	Portland	Jacksonville	Lumber, general	5,870	5,659	4,138
Miller County [1]	7	3.00	7	10.56	7	19.00	7	19.00	American	Sun Oil Co. of Philadelphia	431.0	59.2	26.6	San Pedro	Philadelphia	Petroleum	9,914	7,825	4,870
Mantaro	7	4.00	7	11.33	7	18.42			Peruvian	Peruvian Line	367.3	46.0	17.5	Callao	Cristobal	General	1,280	4,838	2,959
Oropesa	7	11.15	7	12.38	7	21.40	8	4.35	British	Pacific Steam Navigation Co	552.0	66.0	29.8	Punta Arenas	Liverpool	([20])	9,718	14,510	10,260
Lieut. David Putnam			7		7	17 25			American	U. S. Army				Pedro Miguel	Cristobal				

[1] Tanker. [13] Launch. [14] For orders. [15] Canned goods and general. [16] Copper, nitrate, and general. [17] Wheat, barley, rye, flour, and general. [18] Lumber, lathes, and shingles. [19] Wool, skins, and general. [20] Grain, nitrate, metal, sugar, cotton, wool, and general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian,

(Continued on page 642, column 2.)

Commercial Traffic Through the Panama Canal in May, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	82	359,943	452,689	574,622	360,226	$374,288.29	231,798
From United States to Far East:							
British	8	34,148	45,481	53,914	34,020	42,685.00	47,912
Japanese	5	19,323	22,271	28,413	19,094	23,813.20	22,079
United States	8	37,802	48,764	58,048	37,929	47,252.50	58,272
Totals	21	91,273	116,516	140,375	91,043	113,750.70	128,263
From United States to South America:							
British	9	32,179	38,551	51,508	32,578	36,407.75	27,358
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	2,018
Danish	1	2,670	2,637	3,355	2,084	3,164.40	4,447
Japanese	1	4,147	5,136	6,577	4,112	3,697.92	.....
United States	12	45,454	51,925	77,065	45,537	41,271.11	9,407
Totals	24	87,962	102,954	145,815	88,287	88,931 18	43,230
From Europe to South America:							
British	7	28,086	35,910	44,846	27,494	35,107.50	24,614
Chilean	2	5,017	5,343	7,246	4,579	6,090.15	8,824
Dutch	2	11,410	15,100	18.607	11,245	14,262.50	19,428
German	5	16,055	22,531	23,693	14,104	20,068.75	28,857
Italian	1	3,331	3,975	5,493	3,275	4,163.75	984
Norwegian	1	446	518	684	385	557.50	350
Spanish	2	6,045	7,322	9,845	5,947	7,556.25	505
Totals	20	70,390	90,699	110,414	67,029	87,806.40	83,562
From Europe to Australasia:							
British	8	47,998	61,106	73,374	46,216	59,997.50	55,472
French	1	4,287	5,364	7,129	4,332	5,358.75	5,532
Totals	9	52,285	66,470	80,503	50,548	65,356.25	61,004
From Europe to United States:							
British	4	15,163	17,700	24,469	15,069	14,262.32	4,452
German	1	2,624	4,027	4,454	2,618	3,280.00	6,301
Japanese	1	3,432	4,304	5,438	3,389	4,290.00	4,800
Spanish	1	3,192	4,470	5,196	3,107	3,218.40	.....
Swedish	1	3,386	5,456	5,558	4,246	4,232.50	8,235
United States	2	7,737	9,401	12,506	7,679	6,768.72	.....
Totals	10	35,534	45,358	57,621	36,108	36,051.94	23,788
From United States to Australasia:							
British	10	34,737	48,296	56,466	35,415	43,421.25	49,887
From Europe to Canada:							
British	4	17,517	22,311	28,322	17,618	21,896.25	20,220
French	1	4,196	5,020	6,798	4,268	5,245.00	6,231
Totals	5	21,713	27,331	35,120	21,886	27,141.25	26,451
From Cristobal to South America:							
British	3	1,325	1,429	2,377	1,352	1,635.15	2,035
Peruvian	2	2,495	5,356	8,049	4,187	3,118.75	660
Totals	5	3,820	6,785	10,426	5,539	4,753.90	2,695
From United States to Canada:							
United States	3	10,254	13,034	16,604	10,287	12,817.50	13,706
South American intercoastal:							
Colombian	1	334	335	864	614	402.00	407
Peruvian	1	1,204	2,386	4,403	2,090	1,505.00	895
Totals	2	1,538	2,721	5,267	2,704	1,907.00	1,302
From Cristobal to Central America:							
British	2	1,495	1,724	2,618	1,544	1,868.75	2,537
From Europe to west coast of Central America:							
German	2	4,102	6,056	6,695	4,084	5,127.50	2,223
From Canada to Australasia:							
British	2	6,555	8,276	10,741	6,567	8,193.75	8,200

ATLANTIC TO PACIFIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Cristobal to United States:							
British	1	3,470	4,135	5,574	3,478	$2,977.20	.....
From Canada to west coast of South America:							
British	1	3,988	4,713	7,115	3,943	3,393.36	.....
Foreign vessels in ballast, United States intercoastal:							
British	1	9,342	10,751	15,371	9,326	7,740.72	.....
From Mexico to west coast of South America:							
British	1	4,330	4,831	7,337	4,286	5,412.50	9,739
From South America to west coast of United States:							
United States	1	3,634	4,873	5,867	3,634	4,542.50	5,708
From east coast of South America to Canada:							
British	1	3,635	4,598	5,742	3,636	3,310.56	.....
From east coast of Mexico to Balboa:							
British	1	3,215	4,438	5,198	3,154	4,018.75	7,200
From Cristobal to Balboa:							
British	1	102	152	524	197	109.44	.....
Canadian intercoastal:							
British	1	3,245	4,092	5,399	3,333	4,056.25	4,000
From Canada to west coast of United States:							
Danzig	1	6,405	8,167	8,953	5,119	5,880.24	.....
From east coast of South America to Far East:							
Japanese	1	3,650	4,285	5,790	3,564	4,562.50	2,734
From Europe to Far East:							
British	1	7,174	7,680	9,394	6,919	8,967.50	4,307
Totals, May, 1924	209	833,791	1,051,624	1,335,551	831,856	926,387.18	712,344
Totals, May, 1923	229	931,410	1,139,661	1,467,094	929,315	986,949.06	742,351
Totals, May, 1922	134	472,852	594,713	742,419	467,705	578,433.82	673,398

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	87	376,800	467,574	600,702	377,164	$469,983.58	781,717
From South America to United States:							
British	8	42,500	46,467	66,385	43,169	52,333.10	81,229
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,700
Danish	2	4,595	6,180	7,300	4,561	5,743.75	11,785
Norwegian	1	2,710	4,220	4,340	2,724	3,387.50	8,100
Panaman	1	4,014	4,897	6,386	4,067	5,017.50	8,918
United States	12	46,454	53,991	79,431	47,481	57,861.95	134,247
Totals	25	103,752	120,427	171,131	105,888	128,692.55	249,979
From United States to Europe:							
British	8	27,041	32,308	44,171	26,887	33,801.25	56,910
French	1	4,219	4,932	6,669	4,224	5,273.75	7,303
German	2	6,182	8,716	10,009	6,196	7,727.50	12,873
Japanese	2	8,439	9,466	12,445	8,298	10,368.05	15,629
Norwegian	2	8,166	9,226	12,098	8,003	10,207.50	14,027
Swedish	1	2,259	3,900	3,805	2,833	2,823.75	5,388
United States	3	10,938	14,316	17,835	10,945	13,672.50	24,669
Totals	19	67,244	82,864	107,032	67,386	83,874.30	136,799
From South America to Europe:							
British	8	30,678	38,454	50,028	30,579	38,347.50	52,362
Dutch	2	6,845	8,421	10,895	6,797	8,556.25	11,819
German	5	16,047	20,675	26,051	16,155	20,058.75	30,684
Italian	2	6,700	8,283	11,623	6,951	8,375.00	8,105
Jugo-Slavic	1	2,694	3,987	4,289	2,706	3,367.50	6,900
Totals	18	62,964	79,820	102,886	63,188	78,705.00	109,870
From Canada to Europe:							
British	14	49,373	64,037	75,659	47,651	61,518.35	105,964
Danish	1	5,458	6,927	8,681	5,525	6,822.50	12,500
French	1	4,089	4,936	5,751	3,555	5,111.25	7,438
Norwegian	1	4,509	5,637	7,116	4,493	5,636.25	9,350
Totals	17	63,429	81,537	97,207	61,224	79,088.35	135,252

PACIFIC TO ATLANTIC.—Continued.

Route and registry.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Canada to United States:							
British	1	3,412	4,722	5,341	3,418	$4,265.00	7,600
Danish	1	2,985	4,618	4,750	3,006	3,731.25	6,105
Dutch	1	2,967	3,839	4,751	2,965	3,708.75	7,110
Norwegian	1	3,286	5,310	5,301	3,332	4,107.50	6,523
United States	3	10,150	15,043	16,419	10,139	12,687.50	21,217
Totals	7	22,800	33,532	36,562	22,851	28,500.00	48,555
From Far East to United States:							
British	1	10,545	15,675	19,602	11,866	13,181.25	.....
Japanese	2	9,048	11,490	14,432	8,861	11,310.00	12,230
Panaman	1	7,990	13,028	17,258	7,990	9,987.50	.....
United States	1	5,893	6,216	7,708	5,892	7,366.25	10,462
Totals	5	33,476	46,409	59,000	34,609	41,845.00	22,692
From South America to Cristobal:							
British	3	1,325	1,429	2,377	1,352	1,635.15	1,659
Peruvian	2	2,495	5,356	8,049	4,187	3,118.75	2,795
Totals	5	3,820	6,785	10,426	5,539	4,753.90	4,454
From United States to Canada:							
Danzig	2	11,918	16,083	17,942	10,286	14,897.50	27,434
United States	2	11,109	15,079	17,811	11,104	13,886.25	29,648
Totals	4	23,027	31,162	35,753	21,390	28,783 75	57,082
From Australasia to Europe:							
British	2	15,213	18,891	23,275	14,557	19,016.25	10,943
French	1	4,285	4,335	5,823	4,344	5,202.00	3,500
Swedish	1	3,641	4,147	5,895	4,395	4,551.25	8,000
Totals	4	23,139	27,373	34,993	23,296	28,769.50	22,443
From Central America to Cristobal:							
British	2	1,276	1,412	2,340	1,308	1,595.00	2,043
Panaman	1	2,163	2,459	3,404	2,163	2,703 75	2,420
Totals	3	3,439	3,871	5,744	3,471	4,298 75	4,463
From United States to Mexico:							
British	1	8,252	9,614	13,031	8,216	10,315.00	17,515
From Australasia to United States:							
United States	1	4,445	4,415	5,838	4,493	5,298.00	1,020
From South America to West Indies:							
British	1	102	152	524	197	109.44	.....
From United States to Cristobal:							
United States	1	1,332	1,593	2,153	1,309	1,665.00	1,371
From Balboa to Mexico:							
British	1	3,215	4,438	5,198	3,154	3,195.36	.....
From Philippines to United States:							
United States	1	2,755	2,813	4,430	2,755	3,443.75	6,014
South American intercoastal:							
Peruvian	1	1,204	2,386	4,403	2,090	1,505 00	2,967
From Far East to West Indies:							
Norwegian	1	2,891	4,120	4,853	2,936	3,613 75	7,124
From South America to Egypt:							
British	1	4,162	4,866	6,681	4,166	5,202.50	9,990
From Central America to Europe:							
German	1	2,393	3,381	4,015	2,434	2,991 25	983
From United States to east coast of South America:							
United States	1	3,517	4,931	5,721	3,557	4,396.25	5,243
Canadian intercoastal:							
British	1	4,117	4,186	5,465	3,400	5,146.25	6,509
From South America to Canada:							
British	1	4,133	4,752	7,116	3,997	5,166.25	9,600
From Balboa to Cristobal:							
Panaman	1	47	45	47	45	35.25	.....
Totals, May, 1924	208	826,455	1,034,046	1,330,911	828,755	1,029,377.73	1,641,642
Totals, May, 1923	190	793,989	988,753	1,272,944	801,474	985,266.98	1,522,732
Totals, May, 1922	109	355,831	438,103	555,134	354,585	436,623.55	485,109

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended June 9:

U. S. S. Quail, repair 3 deck winches, anchor engine, towing engine, blocks, motor sailer, whaleboat, generator No. 1, forward and after ventilation motors, voltmeter, and ammeter; install cement deck in forward compartment, linoleum in crew's mess room, C. P. O. quarters, radio room, and Captain's office; renew wire topping lift, fall to main boom, wire fall to forward boom and wire fall to afterboom; renew valves on two fire monitors, impeller shaft for main circulating pump, sea suction to flushing pump, discharge pipe from distiller pump to fire main, suction line to fireroom tanks, drain line from towing engine to main condenser, steam and exhaust line from towing engine, discharge line from crew's toilet, electric lighting circuit in afterhold, and floor plates in both firerooms, etc.; steamship *Jamaica*, repair steering gear, and No. 1 and No. 2 winches; manufacture two tube brushes, etc.; U. S. D. B. boat *L–53*, dock and scrape bottom, repair winch, winch lever, and muffler; lag exhaust pipe with asbestos; manufacture and install new false stack; replace sills and supports of bridge; calk deck; replace section of stern rail; recover pilot house and main cabin roof with canvas, etc.

Minor repairs—Steamships *Kenuta*, *Nirvana*, *Caroline*, *Pear Branch*, *Maryland*, *Mantaro*, motor shooner *Laura C. Hall*, schooner *El Norte*, tug *Cocoli*, and launch *J–9*.

Telegraphic Communication.

The following are the current rates of the All America Cables, Inc., on messages dispatched from the Panama Canal and its terminal ports to the points named. These rates supersede those published in THE PANAMA CANAL RECORD for June 20, 1923. The rates from the points named to the Canal are the same as from the Canal to the points:

Rate to—	Per word.
New York City	$0.30
New Orleans	.30
Galveston, Tex. (via Galveston)	.35
Louisiana and Texas, via Galveston or New Orleans	.35
Alabama	.36
Alaska	.67
Alberta, Canada	.42
Arizona	.42
Arkansas	.39
Ascension Island, Atlantic Ocean	1.06
Australia:	
Via Pacific	1.06
Via Atlantic	1.30
Austria	.70
Azores, Atlantic Ocean (via New York)	.65
Antigua, British West Indies	.71
Aruba, Dutch West Indies	1.45
Argentine:	
Buenos Aires, Rosario, Mendoza, Junin, and Villa Mercedes	.40
Other places	.48
Belgium	.63
Bermuda, Atlantic Ocean	.66
British Columbia, Canada	.42
Bulgaria and Eastern Roumelia	.79
Barbados, British West Indies	.59
British Guiana	.71
Bolivia:	
Corocoro and Lapaz	.39
Other places	.44
Riberalta and Trinidad	.64
Brazil:	
Rio Janeiro, Santos, and San Paulo	.50
Amazon River stations—	
First zone	.90
Second zone	1.20
Acre district—	
Via Belem	1.10
Via Manaos	1.50
Other places	.60
California	.42
Ceylon, Indian Ocean	.98
China:	
Macao	1.45
Other places	1.40
Conchin, China, (French)	1.34
Colorado	$0.39
Connecticut	.33
Curacao, Dutch West Indies	1.33
Chile:	
Iquique, Antofagasta, Valparaiso, and Santiago	.30
Arica and Tacna	.30
Puntarenas, via Santiago, Chile, and wireless	.46
Other places in Chile	.34
Cuba:	
Santiago and Fishermans Point	.25
Other places	.30
Deferred rate	.16⅔
Costa Rica:	
Puntarenas, Port Limon, and San Jose	.15
Other places	.20
Colombia:	
Buenaventura and Cartagena	.20
Other places	.35
St. Andrew Island, via Cartagena and wireless	.38
Delaware	.33
Denmark	.65
District of Columbia	.33
Dominica, British West Indies	.71
Dutch Guiana	1.47
Dominican Republic:	
Santo Domingo via F. P. and wireless	.47
All places via Santiago de Cuba	.85
Egypt, Alexandria	.82
Ecuador:	
Esmeraldas, Guayaquil, and Santa Elena	.25
Other places	.30
Finland	.69
Florida	.39
Formosa Island	1.48
France	.62
French Guiana	1.37
Georgia	.36
Germany	.65
Gibraltar	.76
Great Britain and Ireland	.60
Greece and Islands	.75

Rate to—	Per word.
Guam Island	$1.17
Grenada, British West Indies	.71
Guadeloupe, French West Indies	.95
Guatemala, San Jose de Guatemala	.20
Other places	.25
Hawaiian Islands; Honolulu	.77
Holland	.65
Hungary	.73
Haiti:	
Port au Prince, Mole St. Nicholas, and Cape Haitien	.65
Other places	.70
Via F. P. and wireless	.90
Honduras	.25
Belize, British Honduras, via Vx and wireless	.42
Iceland	.68
Idaho	.42
Illinois	.36
India	.98
Indiana	.36
Iowa	.39
Italy	.66
Jap or Yap, Caroline Island	1.48
Japan:	
Via San Francisco and wireless	1.27
Via Pacific	1.48
Jamaica, British West Indies	.59
Kansas	.39
Kentucky	.36
Louisiana (via New York)	.39
Luxemburg	.67
Les Saintes, French West Indies	.95
Madagascar	1.10
Maine	.33
Malta, Mediterranean Sea	.72
Manitoba, Canada	.42
Maryland	.33
Massachusetts	.33
Mauritus Island, Indian Ocean	1.06
Mesopotania	1.09
Michigan	.36
Mississippi	.36
Minnesota	.39
Missouri	.39
Montana	.39
Morroco, North Africa, Tangier	.71
Montserrat, British West Indies	.74
Marie Galante, French West Indies	.95
Martinique, French West Indies	.95
Mexico:	
Salina Cruz, Vera Cruz, Mexico City, Porto Mexico	.30
Other places	.33
Nassau Islands, Bahama, Atlantic Ocean	.65
Nebraska	.39
Nevada	.42
New Brunswick, Canada	.36
Newfoundland	.44
New Hampshire	.33
New Jersey	.33
New Mexico	.39
New York State	.33
New Zealand:	
Via Pacific	.98
Via Atlantic	1.22
North Carolina	$0.36
North Dakota	.39
Norway	.75
Nova Scotia, Canada	.36
Nicaragua:	
San Juan del Sur	.15
Other places	.20
Ohio	.36
Oklahoma	.39
Ontario, Canada	.36
Oregon	.42
Persia	.99
Philippine Islands, Manila	1.32
Poland	.72
Portugal	.75
Porto Rico:	
Ponce and San Juan	.30
Other places	.33
All Porto Rico via F. P. and wireless	.45
Peru:	
Paita, Callao, Lima, and Trujillo	.35
Deferred rate	.22½
Mollendo, Arequipa, and other Southern Peruvian stations	.55
Other places	.40
Iquitos via wireless	.45
Paraguay	.48
Quebec, Canada	.36
Rhode Island	.33
Russia in Europe	.76
Russia in Asia (Siberia, Vladivostok)	76
Russia in Caucasus	.76
Servia	.71
South Carolina	.36
South Dakota	.39
Spain	.73
Sweden	.66
Switzerland	.67
Syria	.88
St. Christopher, British West Indies	.71
St. Kitts, British West Indies	.71
St. Lucia, British West Indies	.71
St. Vincent, British West Indies	.71
St. Croix, and St. Thomas, West Indies	.67
Via F. P. and wireless	.45
Salvador; La Libertad	.20
Other places	.25
Tasmania	1.06
Tennessee	.36
Texas (via New York)	.39
Turkey in Asia	.83
Turkey in Europe	.73
Tobago, British West Indies	.71
Trinidad, British West Indies	.71
Utah	.42
Uruguay; Montevideo	.40
Other places	.47
Vermont	.33
Virginia	.36
Venezuela:	
Via Trinidad and wireless	.84
Via Santiago de Cuba	1.15
Deferred rate	.60
Washington State	.42
West Virginia	.36
Wisconsin	.36
Wyoming	.39

DEFERRED RATES.

The rate on deferred messages to the United States and Europe is one-half of the full rate, and on deferred messages to Central and South America and the West Indies, one-half of the full rate, with the following exceptions, for which deferred rates are as follows:

Cuba, except Santiago and Fishermans Point	$0.16½
Dominican Republic	.42½
Grenada, B. W. I.	.35½
Guadeloupe	.47½
Haiti—Port au Prince, Mole St. Nicholas, and Cape Haitien	.32½
Other places	.37½
Jamaica	.29½
Les Saintes, Marie Galante, and Martinique	.47½
Montserrat, St. Christopher, St. Lucia, St. Vincent, Tobago, and Trinidad	$0.35½
Salina Cruz, Vera Cruz, and Mexico City, half rate, but other places in Mexico	.18
Paita, Callao, Lima, and Trujillo	.22½
Mollendo, Arequipa, and other stations in Southern Peru	.32½
St. Croix and St. Thomas	.33½
Venezuela via Cuba	.60

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity, as fast as the ships can take it. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in nearly 10 years of operation.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 636.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
June 1	Panama	Panama Railroad Co	New York via Haiti.
June 1	Cartago	United Fruit Co	New Orleans via Habana.
June 1	Calamares	United Fruit Co	Port Limon.
June 2	Macoris	French Line	St. Nazaire via wayports.
June 3	Pastores	United Fruit Co	New York via Habana.
June 3	Abangarez	United Fruit Co	New Orleans via Habana.
June 4	Camden	United Fruit Co	Houston.
June 4	Cartago	United Fruit Co	Boscas del Toro.
June 4	Sixaola	United Fruit Co	New York via Kingston.
June 4	Metapan	United Fruit Co	Colombian ports.
June 5	El Norte [21]	Heurtado	Colon.
June 5	Dos Hermanos [23]	J. Newmann	Chame.
June 5	Guardian [23]	All America Cables, Inc	Callao.

*DEPARTURES.

Date.	Vessel.	Line.	For—
June 1	Calamares	United Fruit Co	New York via Habana.
June 1	Cartago	United Fruit Co	Bocas del Toro.
June 4	Cartago	United Fruit Co	New Orleans via Habana.
June 4	Pastores	United Fruit Co	Port Limon.
June 4	Macoris	French Line	St. Nazaire via wayports.
June 5	Ulysses and Darien [22]	Panama Railroad Steamship Line	Norfolk.
June 5	Sixaola	United Fruit Co	Colombian ports.
June 5	Metapan	United Fruit Co	New York via Kingston.
June 5	Abangarez	United Fruit Co	New Orleans via wayports
June 6	Camden	United Fruit Co	Baytown via Tampico.
June 7	El Norte [21]	Heurtado	Colon.
June 5	Dos Hermanos [23]	J. Newmann	Chame.
June 5	Guardian [23]	All America Cables, Inc	High seas.

PORT OF BALBOA.

[21] Motor schooner. [22] Barge. [23] Cable ship.

* Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., June 18, 1924. No. 45.

Traffic During the First Fifteen Days of June.

During the first 15 days of June, 1924, 197 commercial vessels transited the Canal paying tolls to the amount of $937,024.58. This is a daily average transits of 13.13 and of toll collections of $62,468.31. The average amount of tolls paid by each vessel was $4,756.47.

For the first 11½ months of the fiscal year 1924, the total commercial transits were 5,050, and the total tolls collection on commercial traffic, $23,456,166.90. This exceeds any previous calendar or fiscal year in the history of the Canal, being greater than the calendar year 1923, which was the record year, by 13 transits and $468,328.72 tolls.

In the tabulation below is given the traffic for the first 11½ months of the current fiscal year, month by month, with daily averages for each month and for the 11½ months:

Month.	Total transits.	Tolls.	Daily average transits.	Daily average tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.12
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,335,729.81	16.32	75,346.12
January	476	2,216,855.01	15.34	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
May	417	1,955,764.91	13.45	63,089.19
June (15 days only)	197	937,024.58	13.13	62,468.31
Totals	5,050	23,435,166.90	14.27	66,201.04

Transit of Auxiliary Yacht "St. George."

The auxiliary yacht *St. George*, 327 net tons, Panama Canal measurement, arrived at Cristobal, June 9, 1924, and transited the Canal on June 13, en route from Dartmouth, England, to Tahiti and South Pacific Islands on a scientific expedition. She is owned and operated by the Research Expeditions, Ltd., of England, and has a party of distinguished English scientists aboard. They will spend a short time on the Isthmus and in adjacent territory before proceeding to the South Pacific Islands.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Origin and Destination of Cargo Passing through the Panama Canal from the Atlantic to the Pacific, May, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.[2]	West coast of Mexico.	West coast of North America.[1]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
N. Atlantic ports	25,254	....	12	1,217	15,352	41,835	191,512	3,271	255	.....	.....	.....	195,038	19,235	29,930	7,351	41,466	97,982	5,990	28,254	18,428	52,672	931	388,458	54.5
S. Atlantic ports.	.....	.....	.....	.....	.....	.....	50	.....	.....	.....	.....	.....	50	1,227	.....	.....	.....	1,227	.....	.....	.....	.....	.....	1,277	0.2
Gulf ports.....	178	....	21	150	2	351	46,755	500	.....	.....	.....	.....	47,255	4,004	21,280	3,378	2,754	31,416	.....	12,808	.....	12,808	1,590	93,420	13 1
Totals, U. S...	25,432	....	33	1,367	15,354	42,186	238,317	3,771	255	.....	....	.....	242,343	24,466	51,210	10,729	44,220	130,625	5,990	41,062	18,428	65,480	2.521	483,155	67.8
E. coast, Mexico...	9,739	....	.....	.....	.....	9,739	.....	.....	.....	7,200	....	.....	7,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16,939	2.3
Cristobal, C. Z.[2]...	157	67	....	348	3,539	4,111	1,725	.....	3,805	.....	....	.....	5,530	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,641	1.4
E. coast Canada...	.....	....	.....	.....	.....	.....	.....	4,300	.....	.....	....	.....	4,300	.....	.....	.....	.....	.....	3,000	2,700	.....	5,700	.....	10,000	1 4
Totals, N. Amer.	35,328	67	33	1,715	18,893	56,036	240,042	8,071	4,060	7,200	....	.....	259,373	24,466	51,210	10,729	44,220	130,625	8,990	43,762	18,428	71,180	2,521	519,735	72.9
Europe:																									
British Isles.....	5,594	....	190	1,268	16,930	23,982	3,244	6,994	.....	.....	....	1,262	11,500	.....	.....	.....	.....	.....	42,244	.....	.....	42,244	.....	77,726	10.9
France.....	.....	.....	.....	.....	.....	.....	102	.....	.....	.....	.....	.....	102	.....	.....	.....	.....	.....	.....	.....	191	191	.....	293	.....
Germany.....	851	104	3	23	9,135	10,116	36	77	2,271	.....	....	5	2 389	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,505	1.8
Holland.....	12,512	....	.....	.....	500	13,012	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13,012	1.9
Belgium.....	2,033	....	....	300	150	2,483	12,862	469	.....	1	....	.....	13,332	.....	.....	.....	.....	.....	135	.....	.....	135	.....	15,950	2.2
Norway-Sweden...	350	....	.....	.....	.....	350	.....	113	.....	.....	....	.....	113	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	463	.....
Italy.....	146	....	20	80	545	791	146	.....	.....	.....	....	.....	146	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	957	0.1
Europe [1].....	519	....	.....	.....	25,741	26,260	4,302	8,520	6,061	.....	....	11,372	30,255	.....	.....	.....	.....	.....	.....	.....	5,341	5,341	.....	61,856	8.8
Totals, Europe..	22,005	104	213	1,671	53,001	76,994	20,692	16,173	8,332	1	....	12,639	57,837	.....	....	.....	.....	.....	42,379	.....	5,532	47,911	.....	182,742	25.7
E. coast, S. America.	.....	128	....	895	179	1,202	5,931	.....	.....	.....	.....	.....	5,931	2,734	.....	.....	.....	2,734	.....	.....	.....	.....	.....	9,867	1.4
Grand totals..	57,333	299	246	4,281	72,073	134,232	266,665	24,241	12,392	7,201	....	12,639	323,141	27,200	51,210	10,729	44,220	133,359	51,369	43,762	23,960	119,091	2,521	712,344	100.0
Per cent of total cargo:																									
May, 1924.....	8.0	.....	.....	0.6	10.2	18.8	37.4	3.4	1.8	1.0	....	1.8	45.4	3.8	7.2	1.5	6.2	18.7	7.2	6.1	3.4	16.7	0.4	100.0	.....
May, 1923.....	6.0	0.3	0.9	1.1	2.8	11.1	49.7	2.2	0.8	.....	....	0.5	53.2	11.8	6.0	0.1	4.3	22.2	7.4	4.5	0.6	12.5	1.0	100.0	.....
May, 1922.....	9.8	0.2	0.1	1.2	5.7	17.0	33.7	1.5	1.0	.....	0.2	0.1	36.5	11.2	11 1	1.5	16.1	39.9	0.6	1.2	4.8	6.6	.....	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing through the Panama Canal from the Pacific to the Atlantic, May, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	France.	Germany.	Holland.	Spain and Portugal.	Italy.	Norway and Sweden.	Europe.[1]	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																			
South America:																							
Chile	136,878	21,225	12,507	170,610	.....	129	.....	726	171,465	61,621	760	1,542	8,512	1,450	60	7,414	.....	11,676	93,035	.....	9,990	274,490	16.7
Colombia	.....	.....	.....	.....	.....	.....	.....	2,647	2,647	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,647	0.2
Ecuador	.....	.....	.....	.....	.....	.....	.....	1,386	1,386	135	89	167	2,833	102	....	146	.....	.....	3,472	.....	.....	4,858	0.3
Peru	9,117	67,471	.....	76,588	9,600	.....	.....	4,006	90,194	6,458	.....	.....	115	.....	....	158	.....	.....	6,731	.....	.....	96,925	5.9
W. coast, S. America [1]	1,365	.....	.....	1,365	.....	.....	.....	702	2,067	76	.....	.....	.....	.....	....	22	.....	5,775	5,873	.....	.....	7,940	0.5
Totals, S. America	147,360	88,696	12,507	248,563	9,600	129	.....	9,467	267,759	68,290	849	1,709	11,460	1,552	60	7,740	.....	17,451	109,111	.....	9,990	386,860	23.6
North America:																							
W. coast, U. S.	759,687	.....	33,453	793,140	57,082	200	17,515	261	868,198	125,894	12	981	1,358	1,284	....	.....	2,571	9,386	141,486	5,243	.....	1,014,927	61.4
W. coast of Canada	35,240	.....	.....	35,240	6,509	.....	.....	.....	41,749	35,097	6,552	6,329	.....	1,199	....	15,682	24,700	37,248	126,807	.....	.....	168,556	10.4
W. coast, Cen. Am.	1,198	.....	.....	1,198	.....	100	.....	5,017	6,315	1,480	.....	1,004	766	233	....	.....	1,249	959	5,691	.....	.....	12,006	0.8
Totals, N. America	796,125	.....	33,453	829,578	63,591	300	17,515	5,278	916,262	162,471	6,564	8,314	2,124	2,716	....	15,682	28,520	47,593	273,984	5,243	.....	1,195,489	72.6
Asia:																							
Philippines	10,195	.....	9,668	19,863	.....	.....	.....	.....	19,863	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	19,863	1.3
Japan	1,152	.....	.....	1,152	.....	.....	.....	.....	1,152	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	1,152	0.1
China	3,242	.....	48	3,290	.....	746	.....	223	4,259	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	4,259	0.2
Far East [1]	3,432	.....	.....	3,432	.....	7,124	.....	.....	10,556	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	10,556	0.7
Totals, Asia	18,021	.....	9,716	27,737	.....	7,870	.....	223	35,830	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	35,830	2.3
Australasia:																							
Australia	1,020	.....	.....	1,020	.....	.....	.....	.....	1,020	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	1,020	0.1
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,943	.....	.....	.....	.....	....	.....	.....	.....	10,943	.....	.....	10,943	0.7
Australasia [1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,500	8,000	.....	....	.....	.....	.....	11,500	.....	.....	11,500	0.7
Totals, Australasia	1,020	.....	.....	1,020	.....	.....	.....	.....	1,020	10,943	.....	3,500	8,000	.....	....	.....	.....	.....	22,443	.....	.....	23,463	1.5
Grand totals	962,526	88,696	55,676	1,106,898	73,191	8,299	17,515	14,968	1,220,871	241,704	7,413	13,523	21,584	4,268	60	23,422	28,520	65,044	405,538	5,243	9,990	1,641,642	100.0
Per cent of total cargo:																							
May, 1924	58.6	5.4	3.4	67.4	4.5	0.5	1.1	0.9	74.4	14.8	0.4	0.8	1.3	0.2	....	1.5	1.8	3.9	24.7	0.3	0.6	100.0	
May, 1923	67.0	1.3	5.8	74.1	2.0	1.1	6.4	1.3	84.9	8.3	.....	0.6	0.2	0.9	0.6	.....	1.1	3.4	15.1	.....	.....	100.0	
May, 1922	45.3	3.6	1.8	50.7	.....	0.6	0.2	2.7	54.2	28.1	0.4	0.3	5.1	1.3	....	.....	2.3	8.1	45.6	0.1	.....	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 14, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Swiftcagle [1]	6	15.35	8	5.35	8	13.36	8	14.40	American	C. D. Mallory	464.0	60.0	15.0	Texas City	San Pedro	Ballast		8,473	5,997
Maryland	7	13.35	8	7.00	8	14.41	8	15.35	French	French Line	427.0	45.0	16.0	Anvers	Talcahuano	General	3,224	6,234	4,639
K. R. Kingsbury [1]	7	18.27	8	8.25	8	15.07	8	16.05	American	Standard Oil Co	440.0	58.2	19.0	Baltimore	San Pedro	Ballast		9,033	5,938
Steel Trader	8	8.20	8	9.33	8	16.30	8	22.12	American	Isthmian Line	424.2	56.2	25.0	Baltimore	Seattle	Steel, general	7,705	7,611	5,450
Miskianza [1]	8	10.05	8	11.00	8	17.51	8	23.23	American	Walker & Daly (S. B.)	425.0	57.2	21.0	New York	San Pedro	Ballast		7,205	5,125
Spreewald [2]	8	17.55	9	6.20	9	13.25	9	18.32	German	Hamburg-American Line	399.0	54.0	20.6	Hamburg	Buenaventura	General	4,792	6,791	4,997
York City	9	0.05	9	7.35	9	15.13	9	16.35	British	Reardon Smith Line	412.0	55.0	24.0	Port Arthur	Sydney	General	6,823	7,038	5,166
Clement Smith [1]	9	0.50	9	8.13	9	16.15	9	17.15	American	Oil Transport Co	431.0	59.2	20.0	New York	Los Angeles	Ballast		8,097	5,532
Pear Branch	9	6.50	9	10.08	9	17.08	9	18.15	British	Gulf Line, Ltd	398.6	53.8	20.0	Liverpool	Valparaiso	General	2,500	5,760	3,866
George Washington [2]	9	3.50	9	10.25	9	18.30	10	21.52	Norwegian	Norway-Pacific Line	425.5	55.0	20.0	Christiania	Honolulu	General	9,678	7,505	5,627
Pacific Trader [2]	9	8.15	9	12.13	9	20.53	9	22.05	British	Furness Withy & Co	420.0	58.0	19.0	Newcastle	Portland	Ballast		7,892	5,858
Albert Jeffress	9	12.10	9	13.00	9	19.55	9	21.02	American	Garland Line	384.6	51.2	18.0	Norfolk	San Francisco	General	2,300	6,347	4,453
Waimana	9	21.50	10	6.15	10	13.41	10	14.43	British	Shaw, Savill & Albion	477.6	63.0	27.6	Liverpool	Dunedin	General	7,500	11,229	8,252
Canadian Freighter	10	2.00	10	7.15	10	15.00	10	21.30	British	Canadian Govt. Mer. Marine	399.3	52.4	19.5	London	Vancouver	General	4,000	6,224	4,487
Victolite [1]	10	6.00	10	8.25	10	15.59	10	17.15	British	Imperial Oil Co	500.4	68.0	23.0	Charleston	Talara	Ballast		11,049	7,732
Agwipond [1]	10	6.22	10	9.50	10	17.11	10	18.15	American	International Shipping Co	468.3	62.7	21.6	Boston	San Pedro	Ballast		9,810	6,965
Tairoa	10	6.33	10	10.50	10	18.05	10	19.20	British	Shaw, Savill & Albion	478.0	63.2	28.0	London	Auckland	General	6,590	11,192	8,149
Chas. H. Cramp	10	8.10	10	12.00	10	19.40	11	12.45	American	Argonaut Line	404.6	53.0	28.0	Baltimore	San Francisco	[3]	8,171	6,755	4,750
Warfield	10	14.10	10	14.15	10	21.08	10	22.25	British	British India Steam Nav. Co	415.0	52.7	22.6	Montreal	Adelaide	General	3,200	6,229	4,326
J. W. Van Dyke [1]	10	22.30	11	6.40	11	13.40	11	15.00	American	Atlantic Refining Co	435.0	56.0	18.0	Philadelphia	Los Angeles	Ballast		7,462	5,118
Tjibesar	11	6.52	11	7.15	11	14.44	12	4.17	Dutch	Java-China-Japan Line	500.1	63.7	16.6	Hamburg	Antofogasta	Ballast		11,700	8,274
Lillian Luckenbach	11	6.00	11	8.19	11	15.58	11	16.55	American	Luckenbach Line	449.0	60.0	26.3	Boston	Seattle	General	7,000	9,294	6,865
Craster Hall	11	6.40	11	9.30	11	17.16	11	18.20	American	U. S. Steel Products Co	380.0	50.0	24.5	New York	Everett	General	5,871	4,945	3,508
Hampton Roads [1]	11	7.28	11	11.00	11	17.41	11	18.35	American	McAllister Brothers (S. B.)	431.0	59.2	17.0	New York	San Pedro	Ballast		8,093	5,541
Hanover	11	9.35	11	12.13	11	20.00	11	22.18	American	Tampa Interocean Co. (S. B.)	434.3	57.6	25.0	Port Arthur	Far East	General	6,844	7,982	5,911
Ixion	11	8.00	11	12.55	11	20.50	11	21.50	British	Alfred Holt & Co	504.0	60.3	29.10	New York	Honolulu	General	8,350	10,516	7,522
Oreoma	11	14.00	12	6.00	12	13.36	12	22.55	British	Pacific Steam Navigation Co	511.6	62.0	23.11	Liverpool	Coronel	General	3,292½	12,414	8,302
Santa Barbara	11	6.05	12	7.10	12	14.08	12	15.05	American	Pacific Mail Steamship Co	404.6	53.0	23.0	Baltimore	San Francisco	General	5,161	6,789	4,746
Betterton [1]	11	22.55	12	8.25	12	15.47	12	16.40	American	Walker & Daly (S. B.)	431.0	59.2	17.0	New York	San Pedro	Ballast		7,822	5,180
Munaires	12	2.40	12	9.18	12	16.40	12	17.32	American	Munson Line	370.0	53.1	18.0	Baltimore	Seattle	General	2,900	5,577	4,225
Montpelier	12	5.35	12	11.00	12	18.30	12	19.24	American	United American Line	460.0	57.9	19.10	Liverpool	Los Angeles	General	4,950	6,368	4,161
Manchuria	12	13.28	12	13.40	12	20.18	13	3.30	American	Panama-Pacific Line	600.0	65.3	25.6	New York	San Francisco	General	2,085	17,044	11,488

[1] Tanker. [2] Motor ship. [3] Steel, tinplate, and general.

Texan	12	18.35	13	6.08	13	13.58	13	14.50	American	American-Hawaiian Line	471.0	57.2	21.3	New York	Los Angeles	General	5,731	9,154	6,903
Trefusis	13	6.07	13	7.15	13	15.00	13	16.15	British	Edward Hain & Son	399.5	52.4	25.0	New York	Rockampton	General	6,200	5,810	4,096
Tredinnick	13	6.55	13	8.30	13	16.00	13	17.05	British	Hain Steamship Co	400.0	52.0	22.0	New York	Auckland	General	4,854	6,004	4,469
St. George [4]	9	12.30	13	8.10	13	16.25	....	.....	British	Research Expeditions, Ltd	191.0	32.1	17.0	Dartmouth	Tahiti	Ballast	.....	710	327
Port Lincoln	13	6.40	13	9.50	13	16.46	13	17.47	British	Cunard Line, Ltd	425.7	54.1	21.4	London	Brisbane	General	5,000	7,544	5,256
Eclipse	12	21.50	13	10.55	13	19.21	13	20.42	American	Barber Line (S. B.)	440.0	56.0	29.10	New York	Honolulu	General, oil	8,846	8,293	6,080
Cape Ann [1]	13	12.00	13	12.25	13	19.44	13	21.03	American	Cape Steamship Co	425.8	57.0	20.0	New York	San Pedro	Ballast	.....	7,484	5,216
Teno	13	5.50	13	12.30	13	20.28	13	24.00	Chilean	Chilean Line	421.8	56.0	24.2	New York	Valparaiso	General	2,111	7,758	4,672
Herakles	13	7.30	14	6.05	14	13.34	14	15.15	Norwegian	E. I. DuPont de Nemours Co	389.8	54.1	19.3	Philadelphia	Salaverry	Coal, explosives	3,600	5,680	4,220
Canadian Cruiser	13	16.00	14	6.10	14	13.56	14	15.15	British	Canadian Govt. Mer. Marine	430.0	56.0	20.7	Montreal	Auckland	General, autos	4,140	7,680	5,494
Lorenzo	13	19.40	14	7.35	14	14.32	14	15.45	British	Ellerman Bucknell Line	470.5	62.1	24.6	New York	Melbourne	General	7,193	8,571	6,087
Electrician	13	21.58	14	8.35	14	15.29	14	16.34	British	Charente Steamship Co	385.0	52.0	16.6	Demerara	Vancouver	Ballast	.....	5,158	3,674
Chilore	13	20.32	14	9.40	14	16.52	14	17.45	American	Ore Steamship Co	549.0	72.0	22.10	Baltimore	Cruz Grande	Ballast	.....	14,538	9,348
Jamaica	2	21.13	14	10.50	14	19.00	14	20.24	British	Pacific Steam Navigation Co	220.0	33.1	12.6	Cristobal	Buenaventura	General	369	1,187	622
Agwihavre [1]	14	10.23	14	11.05	14	18.01	14	19.08	American	International Shipping Co	480.5	66.0	21.8	New York	Los Angeles	Ballast	.....	9,394	6,365
Mantaro	12	15.25	14	12.27	14	19.06	14	20.40	Peruvian	Peruvian Steamship Line	367.3	46.0	19.0	Covenas	Callao	General, cattle	496	4,838	2,959
Tresithney	14	13.00	14	13.15	14	20.50	14	22.07	British	Hain Steamship Co	472.5	59.3	26.0	New York	Bunbury	General, case oil	6,207	8,710	6,216

[1] Tanker. [4] Yacht.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Nevada	8	6.10	8	7.05	8	15.10	8	15.50	French	French Line	420.2	56.2	27.0	Vancouver	La Havre	(6)	7,738	7,500	5,398
David McKelvy [1]	8	6.15	8	10.39	8	15.38	8	17.58	American	Tidewater Oil Co	430.0	59.2	26.0	Los Angeles	New York	Crude oil	10,800	7,629	5,393
Walter A. Luckenbach	8	10.15	8	11.13	8	18.25	8	20.45	American	Luckenbach Line	465.3	56.1	29.6	Portland	Boston	General	7,707	8,785	5,667
Durango [1]	8	14.40	9	6.12	9	14.25	9	14.25	American	C. D. Mallory Co., Inc	435.0	56.0	29.0	San Pedro	New York	Crude oil	10,964	7,643	5,301
H. C. Fogler [1]	8	18.15	9	7.00	9	15.30	9	15.30	American	Atlantic Refining Co	435.0	56.0	27.0	San Pedro	Philadelphia	Gasoline	7,000	7,641	5,145
Margaret Coughlan	8	21.00	9	7.43	9	16.55	9	16.55	Canadian	Ocean Carrier Corporation	427.0	54.0	24.0	Vancouver	St. John	Lumber	7,434	6,624	4,999
Santa Elisa	9	4.50	9	9.17	9	16.35	9	20.59	American	Grace Line	360.3	51.7	25.6	Talcahuana	New York	(7)	3,377	5,957	4,325
Aldebaran	9	5.45	9	10.01	9	18.50	9	20.00	Dutch	Van Nievelt Goudriaan	493.3	60.6	36.6	Vancouver	New York	Wheat	10,815	8,619	5,854
Salvador	9	10.00	9	12.42	9	19.13	15	6.07	British	Pacific Steam Navigation Co	225.0	35.4	12.3	Champerico	Cristobal	Coffee, general	220	1,270	735
Agwimex [1]	9	13.10	9	14.14	9	22.30	10	0.40	American	International Shipping Corp	480.5	66.0	29.0	San Pedro	Baltimore	Crude oil	13,000	9,394	6,306
Newport	9	14.38	10	6.34	10	20.20	.....	.....	American	Pacific Mail Steamship Co	326.0	38.2	17.4	San Francisco	Cristobal	Coffee, general	659	3,173	2,163
Sydney H. Hauptman	9	19.30	10	6.41	10	14.25	10	14.25	American	Munson McCormick Line	417.0	53.0	25.6	San Francisco	Newport News	Lumber	7,500	7,082	5,167
Ensley City	9	21.00	10	7.07	10	15.27	10	15.27	American	Isthmian Line	395.0	53.0	26.0	Anacortes	New York	Lumber	6,000	7,330	5,239
Radnorshire	10	2.30	10	7.39	10	16.35	10	17.55	British	Glen Line, Ltd	410.9	55.5	27.6	Vancouver	Norfolk [5]	Wheat	9,020	6,898	4,887
Sciota	9	6.42	10	8.03	10	15.25	15	7.45	American	U. S. Navy	155.0	30.0	.....	Balboa	Cristobal	Ballast	.....	.....	.....
Santa Tecla	10	4.30	10	8.28	10	17.15	10	17.15	American	N. O. & S. A. S. S. Co	298.6	40.0	21.9	Iquique	New Orleans	Nitrate of soda	3,531	2,832	1,806
Steel Navigator	10	6.00	10	9.00	10	17.40	10	17.40	American	Isthmian Line	442.0	56.0	23.8	Tacoma, Wash	New York	Lumber	5,500	7,611	5,454
Argon [1]	10	5.00	10	9.26	10	18.18	10	18.18	American	Standard Transportation Co	435.6	56.2	28.3	San Pedro	New York	Crude oil	9,036	7,386	5,183
Jennie R. Morse	10	1.00	10	10.10	10	18.55	10	18.55	American	Barber Steamship Line	402.5	53.2	25.6	Manila	New York	Centrifugal sugar	8,131	6,570	4,798
Pacific Shipper	10	10.55	10	11.37	10	19.20	10	19.20	British	Furness Withy Co	420.0	58.0	27.6	Los Angeles	London	General	8,046	7,892	5,858
Minnesotan	10	4.50	10	12.27	10	21.02	10	21.02	American	American-Hawaiian Line	407.7	53.7	23.3	Seattle	Boston	General	4,989	7,150	4,913
Canadian Britisher	10	13.12	10	14.25	10	22.30	11	0.45	British	Canadian Govt. Mer. Marine	400.0	52.2	23.0	Vancouver	Montreal	Lumber, general	7,200	5,906	4,141

[1] Tanker. [5] For orders. [6] Wheat, rye, salmon, wood, and general. [7] Copper, nitrate, cotton, wool, vanadium, ore, beans, lentils, etc.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Margaret Dollar	10	13.40	10	14.50	10	23.55	11	5.40	American	Robert Dollar Line	429.0	55.2	26.0	Portland	Baltimore	Lumber, general.	8,043	7,579	5,527
Harold Walker [1]	10	16.11	11	6.20	11	14.18	11	14.18	American	Huasteca Petroleum Co	430.0	58.0	27.0	San Pedro	Philadelphia	Crude oil	10,000	6,973	4,523
Agwilake [1]	11	0.40	11	7.22	11	16.25	11	16.25	American	International Shipping Corp	468.0	62.7	28.6	San Pedro	New York	Crude oil (bulk)	12,685	9,802	6,957
Baldhill [1]	11	15.12	12	6.19	12	14.05	12	14.05	American	Walker & Daly	416.8	56.2	27.0	San Francisco	Fall River	Crude oil	8,500	6,728	4,692
Dinteldijk	11	19.30	12	7.13	12	14.55	12	20.40	Dutch	Holland-American Line	501.0	62.0	29.0	Seattle	London	General	9,48	10,785	7,551
Great City	11	21.00	12	8.03	12	17.30	12	18.45	British	Reardon Smith Line	420.0	56.7	26.3	Vancouver	Genoa	Wheat in bulk	9,964	7,029	5,478
Balboa	12	1.00	12	8.57	12	17.30			Colombian	Compania Costernia Colombia	190.0	29.1	13.6	Tumaco	Cristobal	General	310	737	335
Steel Scientist	12	2.00	12	10.10	12	18.00	12	18.00	American	Isthmian Line	424.2	56.2	22.0	Seattle	Boston	Lumber, general.	5,993	7,611	5,454
J. A. Moffett [1]	12	10.45	12	11.31	12	19.20	12	19.20	American	Standard Oil Co	499.2	68.1	30.0	San Pedro	New York	Crude oil	15,000	11,037	7,995
West Notus	12	12.01	12	12.56	12	20.42	13	5.05	American	Swayne & Hoyt	410.5	54.3	19.6	Portland	Santos	General	2,237	6,583	9,414
Augvald	13	0.15	13	7.21	13	14.28	13	14.28	Norwegian	H. M. Wrangell	400.0	52.6	22.6	Genoa Bay	Charleston	Lumber, shingles	8,450	6,698	4,990
King Alfred	13	2.15	13	10.06	13	18.40	13	20.05	British	King Line, Ltd	400.0	52.4	24.0	Portland	Portland	Wheat	7,350	5,730	4,061
Agwismith [1]	13	9.50	13	11.52	13	20.30	13	20.30	American	Tidewater Oil Co	499.6	68.1	28.0	Los Angeles	New York	Crude oil	14,500	10,853	7,736
Teoa	12	22.00	13	13.33	13	21.40	13	21.40	British	New Zealand Shipping Co	460.6	62.8	21.0	Bluff	London	([3])	4,784	10,259	7,092
Standard [1]	14	3.00	14	7.21	14	15.20	14	15.20	American	Standard Oil Co. of N. J.	523.8	68.8	30.0	San Pedro	New York	Crude oil	17,000	12,171	8,782
James B. Duke	14	5.30	14	8.19	14	16.25	14	16.25	American	Garland Steamship Co	385.0	51.2	24.5	Aberdeen	New York	Lumber, general.	5,970	6,242	4,471
Sujerseyco	14	6.50	14	9.11	14	17.05	14	17.05	American	Transmarine Corporation	324.0	46.2	22.6	Coos Bay	New York	Lumber, general.	3,800	3,981	2,612
Giulia	10	22.00	14	11.34	14	18.55	14	22.15	Panaman	G. McMillan	169.0	24.0	13.6	San Pedro	Cristobal	Ballast		358	241

[1] Tanker. [3] Cold storage, wool, and general. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 8	Parismina	United Fruit Co	New Orleans via Habana.	June 8	Parismina	United Fruit Co	Bocas del Toro.
June 8	Pastores	United Fruit Co	Port Limon.	June 8	Pastores	United Fruit Co	New York via Habana.
June 8	Amassia	Hamburg-American Line	Puerto Barrios.	June 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
June 10	Ulua	United Fruit Co	New York via Habana	June 9	Amassia	Hamburg-American Line	Cartagena.
June 10	Atenas	United Fruit Co	New Orleans via Habana.	June 11	Parismina	United Fruit Co	New Orleans via Habana.
June 11	Parismina	United Fruit Co	Bocas del Toro.	June 11	Atenas	United Fruit Co	New Orleans via wayports.
June 11	Carrillo	United Fruit Co	New York via Kingston.	June 11	Ulua	United Fruit Co	Port Limon.
June 12	Sixaola	United Fruit Co	Colombian ports.	June 12	Carrillo	United Fruit Co	Colombian ports.
June 13	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	June 12	Sixaola	United Fruit Co	New York via Kingston.
June 14	Camito	Elders & Fyffes, Ltd	Port Limon.	June 14	Camito	Elders & Fyffes, Ltd	Bristol via Kingston.

PORT OF BALBOA.

June 7	U. S. S. Ramapo	U. S. Navy	San Francisco.	June 10	U. S. S. Ramapo	U. S. Navy	Puntarenas.
June 14	El Chitre	Corro & Sossa	Panama City.	June 14	El Chitre	Corro & Sossa	Chame.

* Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending June 14, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ashbee	Grace Line	June 1	June 1	(1)	11
Venezuela	Pacific Mail Steamship Co		June 1		430
Cartago	United Fruit Co	June 1	June 1	104	425
Panama	Panama Railroad Steamship Line	June 1		3,259	
Calamares	United Fruit Co	June 1	June 1	4	315
Jamaica	Pacific Steam Navigation Co	June 2		765	
Phoebus	Standard Oil Co	June 2	June 3	982	(2)
Macoris	French Line	June 3	June 4	342	719
Ecuador	Pacific Mail Steamship Co	June 3	June 4	748	147
Abangarez	United Fruit Co	June 3	June 5	817	358
Pastores	United Fruit Co	June 3	June 4	96	230
Kenuta	Pacific Steam Navigation Co	June 3	June 4	34	222
Cartago	United Fruit Co	June 4	June 4	4	12
Camden	United Fruit Co	June 4	June 6	8,918	(2)
Sixaola	United Fruit Co	June 4	June 5	290	138
Carolyn	Grace Line	June 4	June 5	539	87
Ucayali	Peruvian Line		June 5		557
Haarlem	Royal Netherlands W. I. Mail	June 4	June 5	25	72
Brielle	Royal Netherlands W. I. Mail	June 4	June 6	231	507
Ebro	Pacific Steam Navigation Co	June 4	June 4	12	240
Moerdijk	Holland-American Line	June 5	June 6	360	489
Jan Van Nassau	Royal Netherlands W. I. Mail	June 5	June 6	247	11
Honduras	French Line	June 5	June 6	95	338
Mineola	Grance Line	June 5	June 6	83	46
Metapan	United Fruit Co	June 5	June 5	11	195
Santa Paula	Pacific Mail Steamship Line	June 6	June 6	(1)	320
Swifteagle	Arrow Oil Co	June 6		11,014	
Oropesa	Pacific Steam Navigation Co	June 7		98	
Almagro	Pacific Steam Navigation Co	June 7		399	
Mantaro	Peruvian Line	June 7		1,292	
Maryland	French Line	June 7		343	
Oropesa	Pacific Steam Navigation Co		June 8		71
Parismina	United Fruit Co	June 8	June 8	232	258
Pastores	United Fruit Co	June 8	June 8	16	619
Panama	Panama Railroad Steamship Line		June 9		2,618
Amassia	Hamburg-American Line	June 8	June 9	145	415
Salvador	Pacific Steam Navigation Co	June 9		220	
Santa Elisa	Grace Line	June 9	June 9	2½	45
Atenas	United Fruit Co	June 10	June 11	733	(2)
Newport	Pacific Mail Steamship Line	June 10		659	
Ulua	United Fruit Co	June 10		171	127
Parismina	United Fruit Co	June 11	June 11	6	(3)
Santa Barbara	Pacific Mail Steamship Line	June 11	June 12	570	569
Carrillo	United Fruit Co	June 11	June 12	147	189
Oreoma	Pacific Steam Navigation Co	June 11	June 12	152	20
Sixaola	United Fruit Co	June 12	June 12	2½	176
Mantaro	Peruvian Line	June 12	June 14	(1)	496
Dinteldijk	Holland-American Line	June 12	June 12	(1)	116
Balboa	Compania Costanera Colombiana	June 12		310	
Teno	Chilean Line	June 13	June 13	(1)	(4)
Herakles	E. I. DuPont de Nemours & Co	June 13	June 14	50	(2)
Cristobal	Panama Railroad Steamship Line	June 13		3,317	
Camito	Elders & Fyffes, Ltd	June 14	June 14	6	(3)

[1] No cargo discharged. [2] No cargo laded. [3] 1 package. [4] 7 packages.

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended June 16:

Steamship *Cristobal*, repair condenser, drain line from feed water heater to condenser, deck steam exhaust pipe, sluice gate between No. 3 and No. 4 holds, sounding pipe No. 5 tank, coffee urn and plumbing; furnish scalers for cleaning and painting in engine department and pipe alleyways; scale and cement wash afterpeak tank; renew cement in butcher's shop, etc.; tug *Tavernilla*, repair boiler valves and mountings, ice machine, main engine, governor turbine, sanitary pump, fresh water pump, fuel oil pumps, towing engine, fuel oil tank, and plumbing; clean and test condenser tubes; install new gasket in forecastle door; clean boilers; install new bottom in filter box; cover steam pipes on top of boiler with sheet metal; manufacture two ventilators for steering room, pidgeon hole rack for bolts, nuts, etc., and manufacture and install chain pipe for anchor chain; clean boiler and engine room bilges; renew fore topmast; examine rudder, pintles and shoe with diver, etc.; steamships *Salvador*, manufacture new compressor rod for refrigerating machine, new end for feed pump plunger, one length of new steering chain, new end for gooseneck of heavy derrick and one hatch tarpaulin; repair suction pipe from forepeak tank, winch exhaust

pipe, stateroom window, gin block, etc.; *Balboa*, dock, clean, and paint; install new tail shaft.

Minor repairs—Steamships *Heredia*, *Lake Flattery*, and *Newport*; yacht *St. George*.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective June 5, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.225
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.36
Oil, burning, colza	Gal.	1.06
Oil, engine, gas, in drums, class C medium	Gal.	.40
Oil, engine, gas, extra heavy, in cases, class C medium	Gal.	.54
Oil, engine, gas, extra heavy, in drums, class C medium	Gal.	.35
Oil, kerosene, in drums	Gal.	.19
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Zinc oxide, dry	Lb.	.13
Zinc oxide, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

Official Circular.

Charges for Electric Current During Absence from Quarters.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 3, 1924.

To all concerned—The following portion of item No. 28 of Departmental Tariff "D," covering charges for electric current, is republished for the information and guidance of employees contemplating absence from quarters:

"1. For metered current consumed by * * * employees, for their personal use, and by those entitled to employees' rates as follows:

First 200 KWH, per month..per KWH..$0.02
Next 9,800 KWH (201 to 10,000) per KWH.. 0.015
Over 10,000 KWH.....per KWH.. 0.014
Minimum charge for any one user, per month..... 1.00

"2. Employees on leave:

(*a*) No charge will be made for disconnecting electric service for employees entering on leave or for reconnecting service upon return from leave, nor will any charge be made for service during this time that service is disconnected.

(*b*) In case of employees entering on leave and retaining electric service for dry-closet lamps only, the total current consumption during period of leave and up to first meter reading after return from leave will be billed at the regular tariff rate, no monthly minimum charge being made during period of leave.

When quarters are temporarily vacant and the Electrical Division is not notified prior to the employee's entry on leave of absence that the current should be discontinued, it will be metered and charged for as prescribed in paragraph 2 (*b*).

When an employee is not on leave but it is impracticable to read the meter in the quarters because of the absence of occupants, charge will be made on basis of the subsequent reading, which will be prorated by the number of months covered by the reading.

District Quartermasters shall notify the Electrical Division in each case where the employee has been given permission to sublet his quarters.

A separate request should be made direct to the Electrical Division if the employee also has a personal telephone which he wishes disconnected for the period of vacation.

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., June 25, 1924. No. 46.

Heavy Shipments of Lumber Through Panama Canal.

The steamship *Pomona*, owned and operated by the Weyerhauser Timber Co., passed through the Canal on June 17, 1924, en route from Everett, Wash., to Baltimore, Md., carrying 10,000 tons of lumber. This is the second transit of this vessel over the same route with a large cargo of lumber since the first of January; the first being on March 8, 1924, with 10,833 tons. On these two transits the cargo aggregated approximately 13,000,000 board feet.

Shipments of lumber through the Canal have increased very rapidly as may be seen from the following tabulation in which are shown the total shipments for the calendar years 1921, 1922, 1923, and the first 5 months of 1924, showing locality of origin and destination. The west coast of the United States and Canada are thrown together, as in many cases it is impossible to differentiate between them:

Year.	Originated.			Destined to—		
	Total shipments.	Miscellaneous.	West coast United States and Canada.	East coast United States.	Europe.	Miscellaneous.
1921	448,087	2,665	445,422	346,349	71,943	29,895
1922	1,121,705	20,745	1,100,960	972,353	98,305	51,047
1923	1,656,776	9,167	1,647,609	1,492,030	93,045	71,701
1924 [1]	811,191	9,579	801,612	732,168	59,513	19,510

[1] First 5 months.

Shipment of lumber through the Canal for the first 5 months of 1924 were one and four-fifths times those for the full calendar year 1921.

Full Cargo of Rice from Siam to West Indies.

The United States steamship *Satsuma* transited the Canal on June 22, 1924, en route from Bangkok, Siam, to Habana and Caribbean ports, with a cargo of 6,660 long tons of rice. The *Satsuma* is owned and operated by the Barber Line.

Change in Rates for Commercial Radio Messages.

The following circular, issued under date of June 20, 1924, by the District Communication Superintendent of the 15th Naval District, in charge of Naval radio stations in the Canal Zone and Panama, is published for the information of all concerned:

1. Effective July 1, 1924, the land line rate on all commercial radio messages will be changed from present rate to a flat rate of 2 cents per word. Messages filed at radio stations will be charged for at the same rate as filed at offices of the Panama Railroad Company or offices of the Panama National Telegraph Company.

2. The effect of the change made herewith makes the total charges for a commercial radio from ship to shore or from shore to ship, 22 cents per word, and similarly, for local messages between shore stations in Panama and the Canal Zone, the total charges will be 6 cents per word.

CANAL WORK IN MAY.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of May, 1924:

BALBOA HEIGHTS, C. Z., June 15, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of May, 1924:

NUMBER OF TRANSITS.

The number of commercial transits during the month was 417, averaging 13.45 per day. In addition to commercial vessels, there were 12 transits of small nonseagoing launches, on which tolls were paid but which are not taken up in the commercial traffic, and 43 vessels belonging to or chartered by the United States Government from which no tolls were collected, making the total transits of all kinds 472. The daily average of transits of all kinds was 15.23.

Tolls for the month were $1,955,764.91 on the commercial traffic, and $83.25 on the nonseagoing launches, making a total tolls collection for the month of $1,955,848.16, or an average daily collection of tolls on all traffic of $63,091.88.

As in the preceding month, the number of commercial transits was slightly less than the corresponding month a year ago. The tolls in April, 1924, were in excess of the tolls in the corresponding month in the preceding year, while in May, 1924, both the transits and the tolls collection were less than in May, 1923, as may be seen from tabulation below. This is the first month since March, 1922, in which the tolls for the month have not exceeded those in the same month in the preceding year. The cargo in May, 1924, exceeded that in May, 1923.

The total craft of all kinds transiting the Canal during the month of May, 1924, as compared with the same month in 1923 and 1922, is shown in the following tabulation:

	May, 1924.	May, 1923.	May, 1922.
Commercial vessels	417	419	243
Noncommercial vessels, Army and Navy	43	13	18
Launches, under 20 tons measurement	12	10	6
Total vessels transiting Canal	472	442	267

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

Locks.	Northbound.	Southbound.	Total.
Gatun	9	10	19
Pedro Miguel	21	25	46
Miraflores	19	22	41
Totals	49	57	106

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of commercial vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by commercial vessels transiting the Canal each month, from the beginning of the fiscal year, 1924, to the end of May, 1924, as compared with the same months in the previous year:

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1922-3	1923-4	1922-3.	1923-4.	1922-3.	1923-4.	1922-3.	1923-4.
July	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,050,656.97
September	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,435.61
October	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November	294	436	1,337,280	2,193,865	1,426,860	2,218,295	1,264,436.54	2,058,188.61
December	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January	352	476	1,610,692	2,400,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
February	326	418	1,529,547	2,108,879	1,563,278	2,243,616	1,423,954.21	1,964,155.59
March	409	429	1,988,192	2,136,079	1,940,928	2,272,472	1,827,718.44	1,997,138.83
April	404	403	2,097,690	2,053,171	2,187,145	2,158,721	1,878,938.15	1,903,761.27
May	419	417	2,128,414	2,085,670	2,265,083	2,353,986	1,972,216.04	1,955,764.91
Totals	3,550	4,853	16,569,884	24,220,839	17,471,429	24,971,860	15,610,155.77	22,498,142.32

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The increase in commercial traffic for the first 11 months of the current fiscal year, as compared with the preceding fiscal year has been approximately 36 per cent in transits, 46 per cent in Panama Canal net tonnage, 43 per cent in tons of cargo carried, and 44 per cent in tolls.

Following is a summary of the commercial traffic in May, 1924, as compared with the corresponding months in 1923 and 1922, and with the average per month for the calendar year 1923:

	May, 1924.	May, 1923.	May, 1922.	Average per month for calendar year 1923.
Number of vessels	417	419	243	420
United States equivalent tonnage	1,660,246	1,725,399	828,683	1,665,195
Panama Canal net tonnage	2,085,570	2,128,414	1,032,816	2,061,453
Registered gross tonnage	2,666,462	2,740,038	1,297,553	2,638,175
Registered net tonnage	1,660,611	1,730,789	822,290	1,660,964
Tolls	$1,955,764.91	$1,972,216.04	$1,015,057.37	$1,913,903.18
Tons of cargo carried	2,353,986	2,265,083	1,158,507	2,096,712

The average daily number of transits, tolls, and cargo are shown in the following statement in comparative forms:

	Average per day.			Average per day for calendar year 1923.
	May, 1924.	May, 1923.	May, 1922.	
Number of transits	13.45	13.52	7.84	13.8
Panama Canal net tonnage	67,280	68,658	33,316	67,774
Tolls	$63,089.19	$63,619.87	$32,743.78	$62,922.84
Tons of cargo carried	75,935	73,067	34,145	68,983

From the foregoing it will be seen that the average daily traffic in May, 1924, in comparison with May, 1923, shows the following: Commercial transits, a decrease of 0.52 per cent; Panama Canal net tonnage, a decrease of 2.01 per cent; tolls, a decrease of 0.83 per cent; and tons of cargo carried, an increase of 3.93 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of May, 1924, as compared with May, 1923, and May, 1922, are shown in the following tabulation:

	Average per vessel.		
	May, 1924.	May, 1923.	May, 1922.
United States equivalent net tonnage	3,981	4,118	3,410
Panama Canal net tonnage	5,002	5,079	4,250
Registered gross tonnage	6,394	6,539	5,340
Registered net tonnage	3,982	4,131	3,384
Tolls	$4,690.08	$4,706.96	$4,177.12
Cargo (including vessels in ballast)	5,645	5,406	4,356
Cargo (laden vessels only)	6,688	7,104	5,149

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement gives a summary of the intercoastal traffic through the Canal, for the month of May for the past 4 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
May, 1921	19	82,257	90,617	16	75,593	93,242	35	157,850	183,859
May, 1922	32	152,260	173,128	23	108,686	108,319	55	260,946	281,447
May, 1923	112	615,836	311,625	93	534,559	916,104	205	1,150,395	1,227,729
May, 1924	82	452,689	231,798	87	467,574	781,717	169	920,263	1,013,515

As in the preceding month, April, it will be noted that this trade shows a perceptible decrease. This is due to the falling off of shipments from the Southern California oil fields, which has been mostly intercoastal, but so far the loss has been largely compensated by increases in other trade.

UNITED STATES SHIPPING BOARD VESSELS.

Twenty vessels of the United States Shipping Board transited the Canal during the month of May, 1924; of these, 12 were employed in the United States intercoastal trade. Of the 20 vessels, 10 were tankships and 10 were general cargo carriers.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels through the Canal during the month of May, for the past 3 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
May, 1922.....	13	68,285	89,483	9	42,499	50,953	22	110,784	140,436
May, 1923.....	12	61,691	37,588	12	62,046	108,715	24	123,737	146,303
May, 1924.....	10	52,926	34,731	10	50,391	77,209	20	103,317	111,940

ORIGIN AND DESTINATION OF TONNAGE.

The origin and destination of all tonnage passing through the Canal during the month of May, 1924, by principal geographical areas, as compared with May, 1923, and May, 1922, are shown in the following tabulation. The figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	May, 1924.	May, 1923.	May, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	744,240	843,449	403,970
Europe (including British Isles)	243,594	209,057	118,012
East coast of Canada	25,248	11,918	9,620
East coast of Mexico and Central America	9,269	14,723	26,305
Cristobal, C. Z.	11,072	22,593	22,529
East coast of South America	18,201	9,267	9,196
Miscellaneous	.....	28,634	5,081
Totals	1,051,624	1,139,661	594,713
Destination, Pacific-bound tonnage.			
West coast of United States	525,973	729,396	184,282
West coast of South America	212,703	153,804	142,801
Australasia	123,042	94,173	49,410
Far East	128,481	117,231	176,176
Canada, west coast	49,055	40,039	33,771
West coast of Mexico and Central America	12,370	5,018	6,273
Totals	1,051,624	1,139,661	594,713
Origin, Atlantic-bound tonnage.			
West coast of United States	597,738	629,613	170,412
West coast of South America	219,188	165,119	133,033
Australasia	31,786	42,707	41,334
Far East	54,342	55,422	24,388
Canada, west coast	119,255	88,194	56,686
West coast of Mexico and Central America	11,690	7,698	12,250
Miscellaneous	45	.....	.....
Totals	1,034,046	988,753	438,103
Destination, Atlantic-bound tonnage.			
East coast of United States	676,170	703,708	224,244
Europe (including British Isles)	274,975	181,724	165,143
East coast of Mexico	14,052	56,218	17,474
East coast of Canada	40,100	6,096	4,160
Cristobal, C. Z.	12,294	23,251	16,637
East coast of South America	7,317	.....	4,873
Miscellaneous	9,138	17,756	5,572
Totals	1,034,046	988,753	438,103

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of May, 1924, was $1,955,764.91. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,353,173.12, a difference of $397,408.21. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$60,619.62	$46,423.95	$107,043.57
Chilean	1,577.45	1,257.65	2,835.10
Danish	.....	5,264.10	5,264.10
Danzig	.....	4,402.10	4,402.10
Dutch	3,857.50	2,504.60	6,362.10
French	1,857.05	1,456.60	3,313.65
German	10,708.55	8,636.50	19,345.05
Italian	606.25	1,564.60	2,170.85
Japanese	4,366.30	3,469.15	7,835.45
Jugo-Slavic	.....	1,416.90	1,416.90
Norwegian	64.10	7,563.10	7,627.20
Panaman	.....	6,749.20	6,749.20
Peruvian	4,666.65	4,666.65	9,333.30
Spanish	1,230.15	.....	1,230.15
Swedish	2,314.70	2,281.40	4,596.10
United States	77,191.14	130,692.25	207,883.39
Totals	169,059.46	228,348.75	397,408.21

Of the additional $397,408.21, that would have been collected by using exclusively the Panama Canal rules of measurement, $20,100 represents the amount that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in May, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, May, 1924.
British	.98	1.47	1.21
Chilean	1.08	1.22	1.12
Colombian	1.21	.....	1.21
Danish	1.69	1.71	1.71
Danzig	.....	1.48	1.48
Dutch	1.28	1.55	1.40
French	1.14	1.28	1.22
German	1.14	1.36	1.25
Italian	.25	.98	.74
Japanese	.96	1.33	1.11
Jugo-Slavic	.....	1.73	1.73
Norwegian	.68	1.58	1.57
Panaman	.....	.55	.55
Peruvian	.20	.74	.47
Spanish	.07	.....	.07
Swedish	1.51	1.66	1.60
United States	1.05	1.73	1.50
Totals, May, 1924	1.01	1.59	1.36
Totals, May, 1923	1.17	1.56	1.41
Totals, May, 1922	1.19	1.17	1.18

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.50	1.67	1.09
United States and South America	.45	2.04	1.31
United States and Europe	.51	1.66	1.25
United States and Far East	1.10	.48	.93
Europe and South America	.92	1.38	1.33
Europe and Canada	.96	1.67	1.45
Cristobal and South America	.39	.64	.53
United States and Australasia	1.03	.25	.97
United States and Canada	.65	1.64	1.40

COMMODITY STATISTICS.

The total tonnage of commercial cargo passing through the Canal during the month of May, 1924, was 2,353,986 long tons. This is 88,906 long tons more than during

the month of May, 1923. Mineral oils from the Pacific to the Atlantic continue to show a considerable decrease as compared with the preceding year, but increases in other items, principally grain and lumber, have so far about counterbalanced this decrease.

From the Atlantic to the Pacific the principal items were various manufactured goods, mineral oils, coal and coke, various metals, cement, sulphur, and automobiles and accessories.

From the Pacific to the Atlantic the principal items were mineral oils, lumber, wheat, nitrates, and various ores. In this direction nitrate was formerly the heaviest single item. During the calendar years 1922 and 1923, shipments of mineral oils began to exceed those of nitrates, and during the last few months the tonnage of lumber and wheat is beginning to exceed that of nitrates, forcing nitrates into fourth place.

The following commodity statistics were compiled from cargo declarations submitted by masters of vessels at the time of transit, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	May, 1924.	May, 1923.	May, 1922.
Atlantic to Pacific.			
Agricultural implements	3,623	2,266	482
Ammonia	3,828	19,145	116
Automobiles and accessories	20,092	5,422	1,360
Canned goods	2,396	1,479	1,700
Cement	21,990	17,358	3,995
Chemicals	6,823	2,318	3,275
Coal and coke	37,546	23,825	21,075
Coffee	3,498	1,436	2,396
Cotton	6,277	8,552	3,943
Glassware	1,576	3,839	6,122
Manufactured goods:			
Iron and steel	154,438	166,126	195,005
Machinery	17,249	12,900	20,347
Railroad material	19,153	16,227	18,139
Textiles and other	10,866	14,659	13,260
Metals, various	23,354	38,602	6,627
Mineral oils	95,369	80,488	138,939
Ores, various	390	4,935	217
Paper	6,279	11,429	9,102
Resin	2,380	3,731	735
Salt	2,806	2,347	1,722
Slag	6,674	.....	.....
Sugar	252	6,681	6,640
Sulphur	24,731	20,083	12,373
Tobacco	8,015	3,339	3,668
Sand	8,728	500	500
Other and general	224,011	274,664	201,660
Totals	712,344	742,351	673,398
Pacific to Atlantic.			
Barley	22,282	10,322	18,411
Beans	3,613	4,951	2,663
Borax	4,908	8,457	3,646
Canned goods	14,405	16,459	12,963
Cocoa	3,526	3,916	7,590
Coffee	12,156	11,219	13,334
Cold storage	6,881	10,738	12,023
Corn	8,440	313	.....
Copra	.....	4,398	2,031
Cotton	1,778	1,775	3,760
Flour	6,546	3,293	6,533
Fruits, fresh and dried	3,694	6,706	2,357
Hemp	759	4,260	843
Lumber	198,433	141,697	96,637
Metals, various	35,875	37,533	15,892
Nitrates	84,289	66,618	29,565
Mineral oils	782,542	926,561	41,789
Oats	5,551	3,773	2,182
Ores, various	115,520	85,508	35,465
Phosphates	8,000	8,800	.....
Rice	9,275	10,677	1,290
Skins and hides	3,804	4,007	1,912
Sugar	23,041	25,724	35,398
Wheat	180,107	53,203	71,697
Wool	7,198	8,487	14,147
Other and general	99,019	63,337	52,961
Totals	1,641,642	1,522,732	485,109

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of May, 1924, was published in THE PANAMA CANAL RECORD for June 11, 1924. The following tabulations show the number of vessels, Panama Canal net tonnage, tons of cargo moving over the principal trade routes during the month of May, 1924, as compared with the same month in the years 1923 and 1922:

Route.	Atlantic to Pacific.			Pacific to Atlantic.		
	Number of vessels.			Number of vessels.		
	May, 1924.	May, 1923.	May, 1922.	May, 1924.	May, 1923.	May, 1922.
United States intercoastal	82	112	32	87	93	23
United States and South America	24	14	13	25	18	19
Europe and South America	20	16	11	18	15	8
United States and Far East	21	21	32	5	8	5
Europe and United States	10	15	5	19	6	11
Europe and Canada	5	5	4	17	9	7
Europe and Australasia	9	6	3	4	5	5
United States and Australasia	10	9	3	1	3	1
Mexico and South America	1	2	5	.....	1	3
Cristobal and South America	5	7	10	5	4	8
United States and Canada	3	3	2	11	7	4
Miscellaneous	19	19	14	16	21	15
Totals	209	229	134	208	190	109
	Panama Canal net tonnage.			Panama Canal net tonnage.		
United States intercoastal	452,689	615,836	152,260	467,574	534,559	108,686
United States and South America	102,954	49,497	55,713	120,427	66,438	64,825
Europe and South America	90,699	74,175	44,611	79,820	68,578	36,327
United States and Far East	116,516	117,231	169,435	46,409	55,422	24,388
Europe and United States	45,358	61,673	23,309	82,864	30,826	55,260
Europe and Canada	27,331	22,604	24,114	81,537	51,753	37,041
Europe and Australasia	66,470	48,073	23,804	27,373	27,814	32,230
United States and Australasia	48,296	41,914	15,986	4,415	14,893	4,944
Mexico and South America	4,831	9,412	23,979	.....	4,723	12,989
Cristobal and South America	6,785	15,030	17,876	6,785	11,669	13,334
United States and Canada	13,034	13,556	9,657	64,694	32,396	19,639
Miscellaneous	76,661	70,660	33,969	52,148	89,682	28,440
Totals	1,051,624	1,139,661	594,713	1,034,046	988,753	438,103
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal	231,798	311,625	173,128	781,717	916,104	108,319
United States and South America	43,230	17,918	28,546	249,979	112,129	81,393
Europe and South America	83,562	43,688	37,547	109,870	74,725	49,546
United States and Far East	128,263	170,616	264,900	22,692	47,910	35,955
Europe and United States	23,788	25,512	19,522	136,799	50,875	92,495
Europe and Canada	26,451	25,462	15,569	135,252	77,015	52,449
Europe and Australasia	61,004	33,162	14,935	22,445	26,562	21,469
United States and Australasia	49,887	55,502	18,710	1,020	13,541	1,065
Mexico and South America	9,739	18,318	44,109	.....	.....	.....
Cristobal and South America	2,695	2,823	3,132	4,454	3,598	5,218
United States and Canada	13,706	21,936	15,300	105,637	46,207	21,322
Miscellaneous	38,221	15,799	38,000	71,779	154,066	15,878
Totals	712,344	742,361	673,398	1,641,642	1,522,732	485,109

LATIN-AMERICAN TRAFFIC.

This traffic shows increases in all respects over the same month in the two preceding years. There were 124 vessels through the Canal in this traffic during the month of May, 1924, as against 111 in May, 1923, and 100 in May, 1922. The Panama Canal net tonnage of these vessels was 490,025, as compared with 428,212 in May, 1923, and 318,121 in May, 1922; tolls were $469,753.04, as against $409,921.00 in May, 1923, and $294,458.27 in May, 1922; and cargo carried was 577,375 tons; 421,590 in May, 1923, and 190,690 in May, 1922.

The principal commodities bound to Latin-America were various manufactured goods, coal and coke, cement, mineral oils, crude and refined, chemicals, and various metals in the order named. From Latin-America the principal commodities were various ores, mostly iron, mineral oils, crude and refined, nitrates, grain, and various metals, mostly copper, in the order named.

Nitrate shipments from South America during the month totaled 84,289 tons as against 121,925 tons in April, 1924, and 115,194 tons in March, 1924. The total

nitrate cargoes during the month were exceeded by shipments of ore and mineral oils.

In the following tabulations are shown the tonnage, tolls, and cargo of all vessels routed to or from Latin America, segregated by nationality and direction, with the totals in each direction as compared with the totals for the month of May in 1923 and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	27	81,825	100,481	132,839	81,662	$94,240.96	73,483
Chilean	3	8,529	10,048	14,556	8,555	10,480.15	10,842
Colombian	1	334	335	864	614	402.00	407
Danish	1	2,670	2,637	5,355	2,084	3,164.40	4,447
Dutch	2	11,410	15,100	18,607	11,245	14,262.50	19,428
German	7	20,157	28,587	30,388	18,188	25,196.25	31,090
Italian	1	3,331	3,975	5,493	3,275	4,163.75	984
Japanese	2	7,797	9,421	12,367	7,676	8,260.42	2,734
Norwegian	1	446	518	684	385	557.50	350
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,555
Spanish	2	6,045	7,322	9,845	5,947	7,556.25	505
United States	13	49,088	56,798	82,932	49,171	45,813.61	15,115
Totals, May, 1924	63	195,331	242,964	324,382	195,079	218,721.54	160,940
Totals, May, 1923	54	157,461	197,263	262,188	156,807	176,589.55	95,548
Totals, May, 1922	50	130,383	166,380	219,045	133,295	152,726.17	140,255
Pacific to Atlantic.							
British	26	95,643	111,584	153,680	96,138	117,899.30	174,398
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,700
Danish	2	4,595	6,180	7,300	4,561	5,743.75	11,785
Dutch	2	6,845	8,421	10,895	6,797	8,556.25	11,819
German	6	18,440	24,056	30,066	18,589	23,050.00	31,667
Italian	2	6,700	8,283	11,623	6,951	8,375.00	8,105
Jugo-Slavic	1	2,694	3,987	4,289	2,706	3,367.50	6,900
Norwegian	1	2,710	4,220	4,340	2,724	3,387.50	8,100
Panaman	3	6,224	7,401	9,837	6,275	7,756.50	11,338
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	5,762
United States	14	51,303	60,515	87,305	52,347	63,923.20	140,861
Totals, May, 1924	61	202,332	247,661	339,076	207,251	251,031.50	416,435
Totals, May, 1923	57	187,294	230,949	318,347	196,625	231,331.45	326,042
Totals, May, 1922	50	119,900	151,741	196,681	121,404	141,732.10	150,435

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up approximately 52.8 per cent of the total commercial transits of the Canal during May, 1924; comprised about 56 per cent of the Panama Canal net tonnage; and carried approximately 57.2 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in May, 1924, classified according to nationality of vessels, by direction, and the combined traffic in both directions, together with the totals for May, 1923, and 1922:

Nationality.	No. of vessels.	TONNAGE.				Tolls.	Tons of cargo.
		United States equivalent.	Panama Canal net.	Registered.			
				Gross.	Net.		
Atlantic to Pacific.							
British	66	257,704	326,174	410,289	256,145	$305,461.50	267,933
Chilean	3	8,529	10,048	14,556	8,555	10,480.15	10,842
Colombian	1	334	335	864	614	402.00	407
Danzig	1	6,405	8,167	8,953	5,119	5,880.24	.....
Danish	1	2,670	2,637	3,355	2,084	3,164.40	4,447
Dutch	2	11,410	15,100	18,607	11,245	14,262.50	19,428
French	2	8,483	10,384	13,927	8,600	10,603.75	11,763
German	8	22,781	32,614	34,842	20,806	28,476.25	37,391
Italian	1	3,331	3,975	5,493	3,275	4,163.75	984
Japanese	8	30,552	35,996	46,218	30,159	36,363.62	29,613
Norwegian	1	446	518	684	385	567.50	350
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	1,555
Spanish	3	9,237	11,792	15,041	9,054	10,774.65	505

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.—Contd.							
Swedish	1	3,386	5,456	5,558	4,246	$4,232.50	8,235
United States	108	464,824	580,686	744,712	465,292	486,940.62	318,891
Totals, May, 1924	209	833,791	1,051,624	1,335,551	831,856	926,387.18	712,344
Totals, May, 1923	229	931,410	1,139,661	1,467,094	929,315	986,949.06	742,351
Totals, May, 1922	134	472,852	594,713	742,419	467,705	578,433.82	673,398
Pacific to Atlantic.							
British	53	205,344	251,403	327,193	203,917	254,827.65	362,324
Chilean	1	3,479	4,672	7,289	3,886	4,348.75	5,700
Danish	4	13,038	17,725	20,731	13,092	16,297.50	30,390
Danzig	2	11,918	16,083	17,942	10,286	14,897.50	27,434
Dutch	3	9,812	12,260	15,646	9,762	12,265.00	18,929
French	3	12,593	14,203	18,243	12,123	15,587.00	18,241
German	8	24,622	32,772	40,075	24,785	30,777.50	44,540
Italian	2	6,700	8,283	11,623	6,951	8,375.00	8,105
Japanese	4	17,487	20,956	26,877	17,159	21,678.05	27,859
Jugo-Slavic	1	2,694	3,987	4,289	2,706	3,367.50	6,900
Norwegian	6	21,562	28,513	33,708	21,479	26,952.50	45,124
Panaman	4	14,214	20,429	27,095	14,265	17,744.00	11,338
Peruvian	3	3,699	7,742	12,452	6,277	4,623.75	5,762
Swedish	2	5,900	8,047	9,700	7,228	7,375.00	13,388
United States	112	473,393	586,971	758,048	474,839	590,261.05	1,015,608
Totals, May, 1924	208	826,455	1,034,046	1,330,911	828,755	1,029,377.73	1,641,642
Totals, May, 1923	190	793,989	988,753	1,272,944	801,474	985,266.98	1,522,732
Totals, May, 1922	109	355,831	438,103	555,134	354,585	436,623.55	485,109
Combined traffic.							
British	119	463,048	577,577	737,482	460,062	560,289.15	630,257
Chilean	4	12,008	14,720	21,845	12,441	14,828.90	16,542
Colombian	1	334	335	864	614	402.00	407
Danish	5	15,708	20,362	24,086	15,176	19,461.90	34,837
Danzig	3	18,323	24,250	26,895	15,405	20,777.74	27,434
Dutch	5	21,222	27,360	34,253	21,007	26,527.50	38,357
French	5	21,076	24,587	32,170	20,723	26,190.75	30,004
German	16	47,403	65,386	74,917	45,591	59,253.75	81,931
Italian	3	10,031	12,258	17,116	10,226	12,538.75	9,089
Japanese	12	48,039	56,952	73,095	47,318	58,041.67	57,472
Jugo-Slavic	1	2,694	3,987	4,289	2,706	3,367.50	6,900
Norwegian	7	22,008	29,031	34,392	21,864	27,510.00	45,474
Panaman	4	14,214	20,429	27,095	14,265	17,744.00	11,338
Peruvian	6	7,398	15,484	24,904	12,554	9,247.50	7,317
Spanish	3	9,237	11,792	15,041	9,054	10,774.65	505
Swedish	3	9,286	13,503	15,258	11,474	11,607.50	21,623
United States	220	938,217	1,167,657	1,502,760	940,131	1,077,201.65	1,334,499
Totals, May, 1924	417	1,660,246	2,085,670	2,666,462	1,660,611	1,955,764.91	2,353,986
Totals, May, 1923	419	1,725,399	2,128,414	2,740,038	1,730,789	1,972,216.04	2,265,083
Totals, May, 1922	243	828,683	1,032,816	1,297,553	822,290	1,015,057.37	1,158,507

VESSELS WITHOUT CARGO.

The number of vessels transiting the Canal in ballast is shown in the following tabulation, the vessels being grouped according to nationality and direction of transit:

Class and nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. Panama Canal net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. Panama Canal net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	7	44,663	$32,475.54	1	4,438	$3,195.36
Danzig	1	8,167	5,880.24	.....	.....	.....
Spanish	1	4,470	3,218.40	.....	.....	.....
United States	39	237,702	171,502.21	.....	.....	.....
General cargo ships:						
British	3	8,698	6,262.56	1	152	109.44
Japanese	1	5,136	3,697.92	.....	.....	.....
Panaman	.....	.....	.....	1	45	35.25
United States	9	39,926	28,832.91	1	209	150.48
Totals	61	348,762	251,869.78	4	4,844	3,490.53

CLASSIFICATION OF VESSELS.

A further classification of commercial vessels passing through the Canal during the month of May, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	3	16,215	$15,582.50	69	412,920	$430,509.95
Ballast	48	295,002	213,066.59	1	4,438	3,195.36
General cargo ships:						
Laden	145	686,647	658,944.70	135	615,282	594,377.25
Ballast	13	53,760	38,793.39	3	406	295.17
Totals	209	1,051,624	926,387.18	208	1,034,046	1,029,377.73
Steamers	199	1,013,517	893,407.42	193	982,602	979,792.56
Motor ships	7	37,813	32,741.17	11	50,966	49,211.25
Motor schooners	1	72	78.75	2	117	114.00
Motor yacht	1	70	50.40	1	209	150.48
Wrecking tug	1	152	109.44	1	152	109.44
Totals	209	1,051,624	926,387.18	208	1,034,046	1,029,377.73

Of the 392 steam vessels, 274 were oil burners, 113 coal burners, and 5 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of May, 1924. If tolls had been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
U. S. Naval vessels:						
Collier	1	[2] 5,233	$6,279.60	1	[2] 6,345	$7,614.00
Cruisers	1	[1] 8,150	4,075.00	3	[1] 18,200	9,100.00
Destroyer	1	[1] 1,250	625.00	.....	.....	.....
Mine sweepers	2	[1] 1,900	950.00	1	[1] 950	475.00
Submarines	11	[1] 5,645	2,812.50	8	[1] 4,135	2,067.50
Subchaser	1	[1] 77	37.50	1	[1] 77	37.50
Subtender	.....	.....	.....	1	[1] 1,408	704.00
Supply Ship	1	[2] 4,355	5,226.00	.....	.....	.....
Tankers	1	[2] 6,424	7,708.80	1	[2] 6,424	7,708.80
Transport	1	[3] 3,909	4,885.00	.....	.....	.....
Tugs	.....	.....	.....	2	[3] 1,950	2,437.50
U. S. Army vessels:						
Launches	1	[2] 70	35.00	.....	.....	.....
Transports	1	[3] 3,909	4,886.25	1	3,909	4,886.25
Tugs	2	[1] 1,450	725.00	.....	.....	.....
Totals	24	42,371	38,245.65	19	43,398	35,030.55

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates registered net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls, carried cargo as follows:

Direction.	Tons.
Atlantic to Pacific	13,463
Pacific to Atlantic	10,967
Total	24,430

The following statement shows the number of launches transiting the Canal during the month; these launches, although paying tolls are excluded from the statements concerning commercial traffic:

Direction.	Number.	Tonnage.	Tolls.
Atlantic to Pacific	11	74	$82.50
Pacific to Atlantic	1	1	.75
Totals	12	75	83.25

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of The Panama Canal during the month of May, 1924, are shown in the following tabulations:

	Cristobal.	Balboa.	Totals.
Local cargo arriving.....tons..	65,228	28,056	93,284
Local cargo shipped.....tons..	9,738	318	10,056
Transit cargo arriving.....tons..	2,332,032	2,346,845	4,678,877
Transit cargo clearing.....tons..	2,330,467	2,346,845	4,677,312
Cargo received for transshipment.....tons..	29,897	2,806	32,703
Cargo transshipped.....tons..	32,901	.....	32,901
Coal arriving.....tons..	38,584	.....	38,584
Vessels supplied with bunker coal:			
Army and Navy vessels.....	.....	1	1
Commercial, other than Panama Railroad.....	69	3	72
Total vessels supplied with coal.....	69	4	73
Coal supplied to above vessels:			
Army and Navy vessels.....tons..	.....	20	20
Commercial, other than Panama Railroad.....tons..	25,442	12	25,454
Total coal supplied to vessels.....tons..	25,442	32	25,474
Coal issued, miscellaneous:			
Panama Canal departments.....tons..	208	65	272
U. S. Army, excepting vessels.....tons..	376	.....	376
Individuals and companies.....tons..	358	.....	358
Panama Railroad Co.....tons..	.....	2	2
U. S. Navy.....tons..	[1] 99	.....	[1] 99
Totals.....tons..	26,483	[1] 99	26,582
Total issues from Panama Canal deposits:			
May, 1924.....tons..	26,483	[1] 99	26,582
May, 1923.....tons..	18,691	852	19,543
May, 1922.....tons..	11,664	3,067	14,731
Coal on hand, June 1, 1924.....tons..	75,831	.....	75,831
Coal on hand, May 1, 1924.....tons..	88,967	.....	88,967
Coal received during month.....tons..	13,347	[1] 99	13,446
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments.....bbls..	5,013.58	17,575.73	22,589.31
Panama Railroad Co.....bbls..	1,030.49	280.30	1,310.79
Army and Navy.....bbls..	1,134.50	88.68	1,223.18
Individuals and companies.....bbls..	.....	10.14	10.14
Total issues and sales.....bbls..	7,178.57	17,954.85	25,133.42
Inventory overage.....bbls..	527.17	52.31	579.48
Fuel oil received during May, 1924.....bbls..	52,271.21	.....	52,271.21
Fuel oil on hand, June 1, 1924.....bbls..	59,963.19	31,691.23	91,654.42
Diesel oil sold during May, 1924.....bbls..	151.85	.....	151.85
Inventory overage.....bbls..	27.39	.....	27.39
Diesel oil on hand, June 1, 1924.....bbls..	39,713.67	575.42	40,289.09
Oil pumped for individuals and companies.....bbls..	502,800.38	439,336.71	942,137.09
Miscellaneous transfers.....bbls..	.....	1,151.46	1,151.46
Gasoline pumped for Panama Canal.....bbls..	1,038.00	4,699.24	5,737.24
Gasoline pumped for individuals and companies.....bbls..	.....	2,560.98	2,560.98
Total gasoline and fuel oil handled.....bbls..	563,440.01	465,703.24	1,029,143.25
Admeasurement of vessels:			
U. S. equivalent certificates issued or made.....	12	5	17
Measured for Panama Canal net tonnage.....	5	1	6
Remeasured for Panama Canal net tonnage.....	11	4	15
Panama Canal net tonnage corrected.....	10	1	11
U. S. equivalent tonnage corrected.....	18	8	26
Services of harbor equipment:			
Tugs, total operating hours.....	480	262½	742½
Launches, total operating hours.....	1,168½	1,413	2,581½

[1] Borrowed from U. S. Navy at Balboa, and returned at Cristobal.

	Cristobal.	Balboa.	Total.
Revenues from tug service, pilotage, etc.:			
Tug revenue	$13,741.25	$6,641.25	$20,382.50
Pilotage	16,257.00	6,202.00	22,459.00
Seamen	10,112.00	10,016.00	20,128.00
Launch service	1,580.00	2,592.00	4,172.00
Wharfage	11,721.00	3,641.71	15,362.71
Ships measured	260.00	50.00	310.00
Miscellaneous cash collections	1,036.10	979.50	2,015.60
Vessels repaired at Panama Canal shops:			
Commercial	41	16	57
U. S. Army and Navy	8	9	17
Canal equipment	5	19	24
Vessels dry docked:			
Commercial	2	2	4
Panama Canal equipment	3	5	8
U. S. Army and Navy	1	4	5
Clearances issued	250	226	476
Bills of health issued	254	226	480

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	470	3,041,589	1,914,069	443	2,795,557	1,784,555
Vessels entering port but not transiting Canal	51	287,238	175,810	5	25,316	17,599
Vessels transiting Canal and handling passengers and cargo at terminals	77	456,173	282,139	90	589,615	361,377
Ships clearing.						
All vessels, including those transiting Canal	474	3,037,189	1,910,812	448	2,808,954	1,792,097
Vessels entering port but not transiting Canal	52	286,015	174,396	6	34,735	23,279
Vessels transiting Canal and handling passengers and cargo at terminals	77	454,293	280,915	92	590,896	362,131

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	900	1,203	2,103	21	39	60
From Pacific ports	150	47	197	176	324	500
Total disembarking	1,050	1,250	2,300	197	363	560
Embarking:						
For Atlantic ports	1,386	984	2,370	17	17	34
For Pacific ports	153	90	243	95	55	150
Total embarking	1,539	1,074	2,613	112	72	184
Remaining on board vessels:						
From Atlantic to Pacific ports	921	3,662	4,583	824	4,491	5,315
From Pacific to Atlantic ports	1,525	870	2,395	1,421	1,447	2,868
From Atlantic to Atlantic ports	396	115	511	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	12	79	91
Total remaing on board	2,842	4,647	7,489	2,257	6,017	8,274
Total arriving	3,892	5,897	9,789	2,454	6,380	8,834
Total departing	4,381	5,721	10,102	2,369	6,089	8,458

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of May, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
U. S. Government vessels	$138.25	$99.80	$3,377.77	$117.12	$135.51	$3,868.45
Panama Railroad vessels	27.00	.69	1,739.26	618.37	472.00	2,857.32
Other commercial vessels	1,692.80	6,315.25	14,787.99	47.13	1,671.05	24,514.22
Total sales, May, 1924	1,858.05	6,415.74	19,905.02	782.62	2,278.56	31,239.99
Total sales, May, 1923	1,144.30	4,653.96	14,713.20	.....	3,145.33	23,656.79
Total sales, May, 1922	1,260.61	2,703.03	17,167.87	.....	1,251.01	22,382.52
Sales at Balboa to:						
U. S. Government vessels	476.58	3,395.42	15,926.68	212.19	2,630.41	22,641.28
Other commercial vessels	325.45	2,227.15	6,175.55	82.70	5,017.49	13,828.34
Total sales, May, 1924	802.03	5,622.57	22,102.23	294.89	7,647.90	36,469.62
Total sales, May, 1923	862.53	3,292.95	14,274.08	635.90	4,434.43	23,499.89
Total sales, May, 1922	948.16	7,444.72	18,177.70	1,433.46	554.36	28,558.40

The aggregate sales to government vessels during the month were $26,509.73, to Panama Railroad vessels, $2,857.32, and to other commercial vessels, $38,342.56, making the total of sales to all vessels, $67,709.61.

LOCK OPERATION.

The following tabulations show the number of lockages and number of vessels passing through the locks during the month of May, 1924, as compared with the corresponding month in 1923 and 1922; and the consumption of water for lockages in May, 1924:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	May, 1924.	May, 1923.	May, 1922.
Gatun	204	195	399	9	8	17	416	416	246
Pedro Miguel	205	207	412	16	16	32	448	444	266
Miraflores	206	205	411	15	15	30	441	438	261
	Number of vessels put through locks.								
Gatun	218	221	439	30	34	64	503	458	286
Pedro Miguel	211	211	422	41	47	88	510	490	296
Miraflores	211	211	422	39	44	83	505	485	288

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	45	42	42
Panama Canal equipment	19	46	41

The total consumption of water for lockages, maintenance and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,635,130,000	1,410,010,000	1,321,380,000
Leakage	20,000,000	11,000,000	20,000,000
Maintenance	.....	8,000,000	.....

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of May, 1924, are shown in comparative forms:

Rainfall for month.	May, 1924.	May, 1923.	May—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	8.68	8.30	12.13	4.95	9.13
Central section	10.06	10.45	16.05	6.31	10.80
Atlantic section	16.23	10.93	22.24	4.54	13.71
Maximum recorded on any one day	3.70	8.92	[1] 12.25	.....	.....
Gatun Lake watershed	12.22	11.10	17.88	6.18	11.80
Chagres River watershed above Alhajuela	18.47	11.41	20.51	5.69	12.85
Maximum recorded for month at any one point	24.38	16.46	30.51	.....	.....
Minimum recorded for month at any one point	5.51	4.68	.....	1.60	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	2,588	1,258	5,220	491	2,195
Maximum momentary discharge for the month	32,740	13,100	[2] 61,200	.....	.....
Gatun Lake watershed, total yield	5,199	3,348	8,665	1,417	4,798
Gatun Lake watershed, net yield	4,754	2,825	7,964	583	4,232
Draft on Gatun Lake for lockages and power	2,616	2,459	2,616	[3] 1,067	[3] 1,854

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] May 5, 1918. [3] Not including May, 1924.

SEISMOLOGY.

A seismic disturbance was recorded on the first of the month at an approximate distance of 1,425 miles.

ELECTRICAL—POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., as compared with the corresponding month in 1923 and 1922, are shown in the following tabulation:

Item.	May, 1924.	May, 1923.	May, 1922.
Gross output, KWH:			
Gatun hydroelectric station	5,265,500	4,463,200	4,402,100
Miraflores steam plant	70	.....	630
Power distributed to consumers.....KWH..	4,050,852	3,712,543	4,413,164
Loss of power in plants, accessories, transmissions, and transformers.....KWH..	1,214,718	583,694	690,187
Per cent of loss of power to gross output	23.06	13.08	15.67
Water consumption.....cubic feet..	3,960,295,407	3,556,450,506	3,535,378,063
Oil consumption.....barrels..	448.87	1,006	1,925

The high per cent of loss of power to gross output was caused by the operation of the new electric-steam boiler installed at the Miraflores plant for the conservation of fuel oil.

In addition to the usual operation, maintenance, and repair work, additions to or repairs of electrical installations were made on 29 vessels during the month.

There were 280 work orders issued during the month for work performed by the different sections of the Electrical Division, as compared with 279 work orders for the month of April, 1924.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 54 vessels at Cristobal, and 44 at Balboa. Of these, 6 were in dry dock at Cristobal, and 11 at Balboa. The more important repair work included the following:

The renewing of the entire bottom planking and keel of the motorship *Atrato*. Work was 75 per cent completed.

The high pressure cylinders of the U. S. Army steamer *Nones* were rebored, main engines lined up, and a general overhaul is being carried out.

The alteration of the dredge *Gamboa* to provide additional watertight subdivisions of her hull was completed. A new type of spring-opposed stern bumper was installed to prevent climbing of empty scows while moored astern.

The steamships *W. J. Hanna* and *Victolite* were docked for periodical cleaning and painting and a general machinery overhaul given the *Victolite*. Extensive boiler repairs were carried out on the steamship *Calonne*.

The submarine *O–6*, damaged by contact with an unchartered pyramid rock, was placed in dry dock and repairs to her hull begun. Submarines *R–23* and *R–27* were placed in dry dock and periodical overhaul of hull and machinery begun.

During the month a 96-inch gear shaper was installed at the Balboa shops, giving the same facilities for ready and cheap production of large gears which the shops have hitherto possessed only for small gears.

The output of the foundry in patterns and castings, as compared with the preceding month, was as follows:

	May, 1924.			April, 1924.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	6	276	43,214	12	456	27,056½
Steel	3	232	61,488	2	332	76,640
Nonferrous	11	657	8,839	7	1,111	16,123½

There were 562 job orders on hand at the beginning of the month, 638 were authorized during the month, and 654 completed, leaving 546 on hand at the close of the month.

There were 364 standing orders on hand at the beginning of the month, 4 were authorized during the month, and one completed, leaving 367 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The output of the 3 filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	May, 1924.	May, 1923.	May, 1922.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	610,151,500	684,899,000	654,853,000
Filtration plants	366,550,000	408,187,000	379,450,000
Water consumed by Panama	91,315,000	93,479,000	85,936,000
Water consumed by Colon	53,055,750	58,896,500	62,468,500
Sales of water to vessels	10,292,685	8,551,122	8,493,096

The extension and enlargement of water system in the Ancon-Balboa district for fire protection was advanced to 80 per cent of completion.

DREDGING.

All slides were quiescent during the month of May, 1924, with the exception of West Lirio and West Culebra.

The slide at West Lirio, the north shoulder of which had partly broken up during the period of greatest activity in October, 1923, continued to settle between stations 1727 and 1731, west. Dredges have been able to take care of the material as rapidly as the pushout occurred. The total yardage removed from this slide since October 28, 1923, is 1,117,160 cubic yards.

West Culebra slide has shown a slight general movement between stations 1776 and 1794.

There was no interference with Canal traffic during the month.

The total excavation during the month was 324,400 cubic yards, as follows:

Cubic Yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
38,050	6,450	31,600	Maintenance	Gaillard Cut, west Lirio slide	*Cascadas.*
5,900	2,350	3,550	Maintenance	Gaillard Cut	*Cascadas.*
3,800	1,200	2,600	Maintenance	Gaillard Cut, east Lirio slide	*Cascadas.*
58,350	5,800	52,550	Maintenance	Gaillard Cut, La Pita Point improvement project	*Paraiso.*
6,150	2,450	3,700	Maintenance	Gaillard Cut, east Lirio slide	*Paraiso.*
7,550	4,200	3,350	Maintenance	Gaillard Cut	*Paraiso.*
36,050	3,450	32,600	Maintenance	Gaillard Cut, west Lirio slide	*Paraiso.*
13,600	13,600	.....	Maintenance	Gaillard Cut, Cucuracha reach	*No. 86.*
62,700	62,700	.....	Maintenance	Gaillard Cut	*No. 86.*
40,900	40,900	.....	Maintenance	Gaillard Cut, Bas Obispo reach	*No. 86.*
51,350	43,150	8,200	Maintenance	Balboa inner harbor	*Cascadas.*

VITAL STATISTICS.

A total of 154 deaths occurred during the month of May, 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.95 per thousand. The leading causes of death were: Tuberculosis (various organs), 28; pneumonia (broncho and lobar), 16; organic diseases of the heart, 13; nephritis (acute and chronic), 9; diarrhea and enteritis (including colitis), 8; and cancer, 8. There were 3 deaths from bronchitis and 3 from apoplexy.

Of the total deaths, 50, or 32 per cent occurred among children under 5 years of age. There were 17 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 289 live births reported during the month, and 24 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 30.38 per 1,000 population. Deaths among children under one year of age numbered 25, giving an infant mortality rate of 86.50 per thousand live births.

The total number of malaria cases reported during the month was 137. Of these, 7 were reported from Panama City, 3 from Colon, 73 from the Canal Zone sanitated areas, and 54 originated outside of our sanitated areas. Of the total, 20 were employees, 39 were nonemployees, and 78 were Army and Navy personnel. There was one death from malaria.

OCCUPANTS OF QUARTERS.

The numbers of persons occupying Panama Canal and Panama Railroad quarters are shown in the following tabulation in comparative form:

	As of May 31, 1924.			Comparative totals.		
	Men.	Women.	Children.	May, 1924.	May, 1923.	May, 1922.
Americans	2,488	2,108	2,345	6,941	6,416	6,239
Europeans	79	29	69	177	166	273
West Indians	4,098	2,619	6,107	12,824	13,007	11,819
Totals, May, 1924	6,665	4,756	8,521	19,942	.....	.....
Totals, May, 1923	6,625	4,820	8,144	.....	19,589	.....
Totals, May, 1922	6,360	4,492	7,773	.....	.....	18,625

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of May 21, 1924, as compared with April, 1924, and May, 1923:

	As of May 21, 1924.			Total employees.	
	Gold.	Silver.	Total.	April, 1924.	May, 1923.
Operation and Maintenance:					
Office	30	36	66	69	84
Electrical	159	183	342	339	303
Municipal Engineering	72	521	593	580	765
Lock Operation	206	604	810	837	827
Dredging	160	880	1,040	1,035	986
Mechanical	415	754	1,169	1,117	1,001
Marine	171	554	725	679	615
Fortifications	14	20	34	49	207
Totals	1,227	3,552	4,779	4,705	4,788
Supply Department:					
Quartermaster	164	1,107	1,271	1,219	1,046
Subsistence	7	84	91	103	90
Commissary	182	827	1,009	1,017	922
Cattle Industry, plantations	5	158	163	190	347
Hotel Washington	7	90	97	100	91
Transportation	33	164	197	191	185
Totals	398	2,430	2,828	2,820	2,681
Accounting Department	195	7	202	199	191
Health Department	232	727	959	940	927
Executive Department	506	253	759	744	741
Totals	933	987	1,920	1,883	1,859
Panama Railroad:					
Superintendent	47	207	254	303	295
Transportation	63	105	168	178	171
Receiving and Forwarding Agent	74	794	868	1,118	728
Coaling stations	62	435	497	567	657
Totals	246	1,541	1,787	2,166	1,851
Grand totals, May, 1924	2,804	8,510	11,314	.....	.....
Grand totals, April, 1924	2,770	8,804	.....	11,574	.....
Grand totals, May, 1923	2,563	8,616	.....	.....	11,179

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month and with the corresponding month in 1923, were as follows:

	May, 1924.	April, 1924.	May, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$343,886.15	$237,653.56	$166,038.40
For other Panama Canal departments	14,402.30	20,348.47	2,366.91
Totals	358,288.45	258,002.03	168,405.31
Cash sales on the Isthmus:			
Stock	27,739.12	22,519.31	19,691.83
Fuel oil	348.11	6,306.04	91.86
Scrap	528.81	373.69	2,308.09
Obsolete and second-hand material	854.90	128.19	20,900.52
Totals	29,470.94	29,327.23	42,992.30

Respectfully,
JAY J. MORROW,
Governor.

Traffic Prospects.

The daily average of cargo shipped through the Panama Canal increased from 71,957 tons in April, to 75,935 tons in May.

EASTBOUND TRAFFIC.

No further decline was registered in California crude oil; in fact cargoes increased from 412,592 tons in April to 582,291 tons in May. Refined oil from California is becoming an important item; the May cargoes totaled 114,691 tons, of which 49,348 tons went to the east coast of the United States and 65,343 tons to the United Kingdom. Crude oil cargoes from Peru totaled 85,479 tons, a record figure.

Nitrate cargoes from Chile were only 84,289 tons, as compared with 121,925 tons in April, but this decline may be regarded as largely seasonal. In May, 1923, only 66,618 tons of nitrate passed through the Canal.

Northwestern lumber cargoes totaled 198,085 tons in May, second only to the figures of the preceding month, which were approximately 11 per cent higher.

A new record was made in eastbound wheat, with 180,107 tons, of which 122,331 tons was shipped from Vancouver, 48,441 tons from United States ports, and 9,335 from the west coast of South America. The rapid development of the Canadian wheat trade has been the outstanding incident of the past season, and all reports indicate that wheat will be shipped through Vancouver in increasing volume and throughout the entire year.

The following table shows the total cargo moving east through the Canal, with the exception of crude oil from California, Peru and all other sources, during the first 5 months of 1923 and 1924:

TOTAL EASTBOUND CARGO, EXCEPTING CRUDE OIL.

Year.	January.	February.	March.	April.	May.
1923	833,889	693,736	739,172	788,976	651,321
1924	1,003,553	920,483	911,738	1,108,809	973,872

It will be noted that there has been a material increase over last year

(Continued on page 671)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 21, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Salvador	9	19.13	15	6.07	15	13.35	15	14.33	Briti-h	Pacific Steam Navigation Co.	215.0	35.4	17.2	Cristobal	Champerico	General	983	1,270	735
Tustem [1]	14	22.30	15	6.15	15	13.19	15	14.33	American	Atlantic Refining Co.	425.0	57.2	19.6	Philadelphia	Los Angeles	Ballast		7,204	4,768
Byron D. Benson [1]	15	3.30	15	7.05	15	14.53	15	15.55	American	Tidewater Oil Co.	465.4	60.2	19.0	New York	San Pedro	Ballast		8,546	6,095
Fred W. Weller [1]	15	4.25	15	8.40	15	16.34	15	17.30	American	Standard Oil Co.	500.0	68.0	17.0	New York	San Pedro	Ballast		10,928	7,710
Bethore	15	14.00	15	14.05	15	21.38	15	22.45	American	Ore Steamship Co.	550.3	72.2	25.6	New York	Cruz Grande	Ballast		15,476	4,354
Sciota [2]			15	8 30	15	14.53			American	U. S. Navy	149.3	30.0		Cristobal	Balboa	Ballast			
Carrabulle [1]	15	18.25	16	6.15	16	13.36	16	14.30	American	Cuba Distilling Co.	390.0	54.2	15.6	New Orleans	Kahului	Ballast		6,183	4,265
Havenside	16	6.45	16	7.08	16	14.57	16	16.25	British	Charlton Steamship Co.	331.2	48.0	20.4	Santa Cruz	Vancouver	Sugar	4,200	3,522	2,469
Pacific	16	8.40	16	9.00	16	16.16	16	21.00	American	Isthmian Line	399.7	56.7	25.0	Baltimore	San Diego	General	7,573	6,479	4,709
Atrato [3]	4–21	19.50	16	9.00	16	16.52	18	12.55	Colombian	Colombian Transport Co.	94.0	23.0	6.6	Cristobal	Buenaventura	Ballast		160	77
Lobos [3]	16	6.20	17	6.12	17	13.32	17	14.25	British	Pacific Steam Navigation Co.	405.0	54.2	16.6	Hull	Valparaiso	General	2,440	7,151	4,756
Yorba Linda [1]	17	5.17	17	10.25	17	17.09	17	17.55	American	General Petroleum Co.	435.0	56.2	21.1	Thameshaven	Los Angeles	Ballast		7,424	5,077
Wido	17	7.25	17	12.00	17	19.12	17	20.08	German	Roland Line	393.7	54.4	21.5	Hamburg	Corral	General	4,922	6,585	4,631
West Camargo	17	4.15	17	14.12	17	21.10	17	22.16	American	Swayne & Hoyt (S. B.)	410.5	54.0	22.9	Bahia Blanca	San Francisco	General	5,604	6,624	4,910
Manuel Arnus	15	9.07	18	6.03	18	13.25	18	14.25	Spanish	Spanish Line	434.0	57.0	22.2	Barcelona	Valparaiso	General	501	7,732	5,518
Invergarry [1]	17	16.05	18	6 20	18	14.13	18	20.20	British	Andrew Weir & Co.	411.0	55.0	19.6	Southampton	Wilmington	Ballast			
Keelung	17	22.50	18	7 15	18	15.02	18	16.20	British	Norton Lilly	400.4	52.0	24.8	New York	Lyttleton	(4)	4,954	6,237	4,537
Robert Luckenbach	18	2.35	18	8.12	18	15.46	18	16.45	American	Luckenbach Line	445.0	58.0	21.7	Boston	San Pedro	General	6,500	8,695	6,375
Gothic Prince	18	4.35	18	9 43	18	16.48	19	7.17	British	Prince Line, Ltd.	448.1	57.2	23.6	New York	Hongkong	General	7,416	9,082	6,701
Wray Castle	18	5.55	18	11.00	18	18.04	18	18.56	British	Barber Line	419.2	55.8	27.5	New York	Hongkong	General	7,009	6,861	5,016
Dominion Miller [3]	18	6.50	18	12.08	18	19.38	19	1.22	British	Furness Line	420.0	54.0	19.2	London	Vancouver	General	1,606	6,996	5,306
Santa Ana	18	15.05	19	6.11	19	13.38	19	17.05	American	Grace Line	360.0	51.0	22.5	New York	Talcahuano	General	2,065	5,776	4,081
Algonquin [1]	18	14.48	19	6.20	19	14.41	19	15.40	American	Standard Transportation Co.	435.0	56.0	19.0	New York	San Pedro	Ballast		7,602	5,337
Trevorian	18	16.20	19	7.32	19	15.25	19	16.38	British	Hain Steamship Co.	400.0	52.0	20.0	Montreal	Auckland	General	3,500	6,022	4,434
Cathwood [1]	19	7.20	19	7.50	19	16.00	19	19.45	American	Union Oil Co	435.0	56.0	19.0	New York	Los Angeles	Ballast		7,482	5,143
Toco [1]	18	21.43	19	8.43	19	16.55	19	18.07	British	Chile Steamship Co.	450.0	56.0	26.0	Tampico	Tocopilla	Oil	9,500	7,693	4,831
Montreal Maru	19	8.27	19	9.03	19	17.30	19	21.12	Japanese	Kawasaki Kisen Kaisha	405.0	53.0	17.0	Portland	Valparaiso	Ballast		7,034	5,081
Peter Kerr	18	16.00	19	10 49	19	17.53	19	18.44	American	United American Line	415.0	55.6	18.0	Baltimore	Los Angeles	General	2,100	7,704	5,707
F. J. Luckenbach	19	11.45	19	12.00	19	18.51	19	17.45	American	Luckenbach Line	446.0	56.0	27.0	Galveston	Seattle	General	7,500	8,508	6,179
Alrich	19	1.15	19	13.00	19	20.18	19	21.12	German	United American Line	361.0	51.0	20.11	Hamburg	Vancouver	General	4,084	5,303	3,855
San Francisco Maru	19	17.00	20	6 15	20	14.09	20	15.20	Japanese	Kokusai Kisen Kabushiki Co.	385.0	51.0	24.0	Philadelphia	Taku Bar	General, case oil.	6,183	6,245	4,704
Dakotan	19	23.00	20	7 10	20	14.45	20	16.05	American	American-Hawaiian Line	407.7	53.7	21.6	New York	Los Angeles	General	4,500	7,156	5,058

[1] Tanker. [2] Tug. [3] Motor ship. [4] Oil, motor, spirit, general.

President Garfield	20	7.22	20	8.23	20	15.33	21	0.37	American	Dollar Line	502.1	62.2	24.6	New York	San Francisco	(6)	2,978	12,057	8,509
El Capitan	19	20.45	20	9.35	20	17.28	20	18.18	American	Dollar Line	238.0	41.0	18.5	Philadelphia	San Pedro	General	1,945	2,350	1,488
Surailco	20	2.50	20	9 22	20	17.25	20	18.18	American	Transmarine Line	321.0	46.0	23.0	Newark	San Francisco	General	4,060	3,984	2,612
Bologna	19	6.50	20	10.59	20	18.35	20	19.40	Italian	La Veloce Line	384.0	46.0	21.0	Genoa	Valparaiso	General	832	5,531	3,774
Robin Gray	20	6.00	20	12 00	20	19.58	20	21.14	American	Seas Shipping Co	421.8	55.0	24.10	New York	Seattle	General, steel	7,347	7,472	5,542
Cape Henlopen [1]	20	12.33	20	12.53	20	21.02	20	22.20	American	Cape Steamship Co	434.8	56.2	20.0	Chester	San Pedro	Ballast		7,425	5,202
Newport	10	20.20	21	6 02	21	13.31	21	16.45	American	Pacific Mail Steamship Co	326.0	38.0	19.5	Cristobal	San Francisco	General	2,086	3,173	2,163
William G. Warden [1]	20	18.55	21	7.30	21	15.06	21	16.15	American	Standard Oil Co	500.0	68.0	20.0	New York	San Pedro	Ballast		10,524	7,600
Willsolo	20	22.40	21	8.15	21	15.19	21	16.20	American	Williams Line	435.0	57.0	19.4	New York	Seattle	General	4,500	7,983	5,882
Cecil County [1]	21	11.45	21	11.50	21	18.41	22	2.44	American	Walker & Daly (S. B.)	431.0	59.2	20.0	New York	San Pedro	Ballast		8,097	5,330
Hudson	20	21.30	21	12.30	21	19.44	21	20.46	French	French Line	396.0	50.5	18.0	Havre	Talcahuano	General	1,000	5,970	4,230
San Salvador [1]	21	9.50	21	13.00	21	20.35	21	21.40	British	Eagle Oil Transport Co	407.4	52.2	21.0	Hull	San Pedro	Ballast		6,157	4,137
Kalypso Vergotti	20	17.05	21	13.55	21	21 12	22	12.55	Greek	Vergotti & Co	400.0	52.0	25.5	Matanzas	Shanghai	Sugar	6,562	5,782	4,038
America [5]	20		21		21	14 46			American	J. H. Stilson				Cristobal	Gatun	(7)		6	6

[1] Tanker. [5] Launch. [6] General, machinery, rubber, and paper. [7] Towing barge.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Lake Flattery [1]	15	3.00	15	7.11	15	13.46	16	11.10	American	Panama Railroad Steamship Line	251.0	43.0	18.0	Guayaquil	New York	General	1,698	2,873	1,776
Phoebus [1]	15	7.15	15	8.13	15	15.52	15	21.18	German	Standard Oil Co	500.0	64.0	28.0	Talara	Vallo	(10)	12,017	10,660	7,873
Julia Luckenbach	15	5.40	15	8.37	15	16.05	15	16.55	American	Luckenbach Line	436.0	57.2	28.0	Portland	Boston	Lumber, general	7,238	8,543	6,402
Dictator	15	10.05	15	10.48	15	18.00	15	19.25	British	T. and J. Harrison	420.0	52.0	23.6	Vancouver	London	(11)	7,200	5,628	4,097
Hamlin F. McCormick	15	15.05	16	6.23	16	13.15	16	13.15	American	McCormick Steamship Co	321.7	50.0	21.0	San Francisco	New York	Lumber	4,260	3,383	2,485
Japan Arrow [1]	15	16.03	16	7.11	16	15.15	16	15.15	American	Standard Transportation Co	468.3	62.7	27.6	Los Angeles	New York	Crude oil	12,300	10,084	7,426
New Britain	16	0.45	16	7.57	16	15.47	16	15.47	American	Great Northern Steamship Corp.	386.8	56.2	21.8	Seattle	Baltimore	Lumber, general	5,590	5,684	4,081
San Leon [1]	16	6.45	16	9.11	16	17.25	16	18.25	British	Eagle Oil Transport Co., Ltd.	395.0	55.0	27.6	Lobitos, Peru	Puerto Mexico	Crude oil	7,758	6,741	4,423
Feltore	16	8.15	16	10.27	16	19.25	16	22.50	American	Ore Steamship Corp	449.0	57.2	28.0	Cruz Grande	Baltimore	Iron ore	11,000	7,808	5,139
A. C. Bedford [1]	16	10.50	16	12.18	16	21.40	16	21.40	American	Standard Oil Co. of N. J.	500.0	68.0	30.0	San Pedro	New York	Crude oil	15,000	10,896	7,688
Darien [8]			16						American	U. S. Navy				Balboa	Darien				
Pomona	16	23.20	17	7.10	17	15.10	17	15.10	American	Weyerhaeuser Timber Co	440.0	56.0	26.4	Everett	Baltimore	Lumber	10,000	8,300	6,026
John D. Archbold [1]	17	6.45	17	9.12	17	18.00	17	18.00	American	Standard Oil Co. of N. J.	554.9	75.3	31.7	San Pedro	New York	Crude oil	19,670	10,896	7,688
Ormidale	12	7.30	17	10.45	17	18.10	17	18.10	American	C. D. Mallory	259.5	43.5	19.0	Seattle	New Orleans	General	2,349	2,373	1,612
Dramatist	17	9.30	17	10.58	17	19.15	17	20.40	British	Harrison Line	410.0	52.0	25.8	Vancouver	Liverpool	General	7,079	6,202	4,154
Cordelia [1]	17	10.40	17	11.48	17	20.45	18	2.35	British	Anglo-Saxon Petroleum Co.	420.3	54.6	26.6	San Francisco	Lands End [9]	Gasoline	8,608	6,837	5,043
Pennsylvanian	17	11.37	17	12.35	17	19.40	18	1.55	American	American-Hawaiian Line	407.7	53.7	22.0	Seattle	Boston	General	4,429	7,107	4,916
Urubamba	17	8.40	17	13.32	17	20.48			Peruvian	Peruvian Line	381.2	46.1	19.0	Ilo	Cristobal	General	1,805	4,803	2,951
Knockfierna	17	12.00	17	14.05	17	22.25	18	0.05	British	Limerick Steamship Co	399.5	52.3	26.0	Tacoma	Hamburg	General	7,360	5,828	4,095
Clan MacPhee	17	14.00	17	14.47	17	23.55	18	15.30	British	Clan Line, Ltd	430.0	53.5	24.0	Bunbury	English Chan	Lumber, copra	6,339	6,954	4,951
Sapelo [1]	17	22.30	18	7.10	18	15.56	23	9.53	American	U. S. Navy	477.0	60.0	26.0	San Francisco	Charleston	Fuel oil	10,000	8,672	6,498
Finland	18	1.37	18	8.10	18	16.55	18	23.20	American	Panama-Pacific Line	560.0	60.0	24.0	San Francisco	New York	General	2,670	13,559	10,313
Bogota	18	2.10	18	9.15	18	17.45	19	16.10	British	Pacific Steam Navigation Co.	415.0	52.5	23.4	Talcahuano	Hull	General	6,639	5,733	4,015

[1] Tanker. [8] Launch. [9] For orders. [10] Gasoline and crude oil. [11] Grain, lumber, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Bethelridge [1]	17	17.20	18	9.51	19	13.05	19	13.55	American	Standard Oil Co. of N. J.	431.0	59.2	29.0	San Pedro	Baltimore	Crude oil	9,800	7,819	5,076
Carnia	18	12.39	18	13.33	18	22.09	19	2.30	Italian	Navagazione Libera	390.0	53.0	22.0	Union Bay	New York	General	5,609	5,884	4,091
Steelore	18	4.15	18	16.10	19	16.20	19	16.20	American	Ore Steamship Corporation	550.3	72.2	33.0	Cruz Grande	New York	Iron ore	20,090	15,551	4,297
William Rockefeller [1]	18	14.20	19	6.29	19	17.30	19	17.30	American	Standard Oil Co. of N. J.	554.9	75.3	31.6	San Pedro	New York	Crude petroleum	19,672	14,785	10,313
Hugoton [1]	18	14.49	19	7.30	19	18.35	19	18.35	American	Malston Co., Inc	434.8	56.2	27.0	San Pedro	Bayonne	Crude petroleum	10,660	7,429	5,142
Mitra [1]	18	16.49	19	7.48	19	19.25	19	22.45	British	Anglo-Saxon Petroleum Co	406.5	51.3	23.0	San Francisco	Lands End [13]	Benzine, bulk	6,990	5,971	4,108
Katrina Luckenbach	19	0.25	19	8.15	19	17.10	19	17.10	American	Luckenbach Line	446.0	56.1	20.6	Portland	Mobile	General	2,789	8,508	6,179
Victolite [1]	19	1.36	19	9.35	19	19.40	19	19.40	British	Imperial Oil Co	590.4	68.2	29.8	Talara	Charleston	Peru. crude oil	15,489	11,049	7,732
Mystic	19	2.40	19	9.59	19	19.53	22	22.39	American	United American Line	400.7	54.2	25.0	Portland	Baltimore	Lumber, general	6,925	6,623	4,625
Eurana [1]	19	5.05	19	11.31	19	20.53	19	20.53	American	International Mercantile Co	435.8	56.3	26.0	San Pedro	Bayonne, N. J.	Crude oil	9,900	6,989	4,976
Aconcagua	19	4.56	19	12.25	19	22.35	20	0.50	Chilean	Chilean Line	422.6	56.2	27.0	Valparaiso	New York	General	5,021	7,758	4,705
Naimes	19	14.00	20	6.11	20	13.35	20	20.50	German	Roland Line	330.8	45.11	19.0	Champerico	Norfolk	General	2,223	3,529	2,532
Bennekom	19	14.05	20	7.16	20	15.25	21	1.00	Dutch	Royal Netherlands W. I. Mail	450.4	58.2	26.0	Valdivia, Chile	Hamburg	General	7,724	7,849	5,806
Suwarinco	19	16.12	20	8.32	20	16.22	20	16.22	American	Transmarine Corp	335.6	46.0	23.0	Grays Harbor	Brooklyn	Lumber	4,000	3,984	2,612
Panama [12]	20	0.10	20	9.11	20	16.43	20	18.20	Danish	East Asiatic Co	410.0	55.2	28.0	Vancouver	Copenhagen	([14])	8,702	7,027	5,341
W. S. Rheem [1]	20	6.46	20	10.27	20	18.20	20	18.20	American	Standard Oil Co. of California	500.0	68.2	29.7	San Pedro	Baltimore	Crude oil	15,000	11,224	7,860
Orient	20	7.45	20	11.15	20	18.55	20	18.55	American	Oriental Navigation Co	390.0	52.0	21.6	Portland	New York	Lumber	5,500	5,919	3,879
Agwistone [1]	20	8.00	20	12.29	20	22.05	21	0.30	American	International Shipping Corp	499.9	68.1	28.0	Los Angeles	New York	Crude oil	15,448	10,853	7,804
Cubore	20	11.00	20	13.18	20	23.09	21	2.55	American	Cre Steamship Corporation	450.6	57.2	29.0	Cruz Grande	Baltimore	Iron ore	10,590	7,956	4,013
Oroya	20	16.40	21	6.24	21	15.35	21	18.12	British	Pacific Steam Navigation Co	523.3	68.2	28.0	Valparaiso	Liverpool	([15])	6,660	13,133	9,064
Montevideo	20	2.00	21	7.07	21	17.25	22	12.45	Spanish	Cia. Transatlantica	410.0	48.2	20.9	Valparaiso	Barcelona	General	156	5,509	3,593
Pedro Christophersen	20	13.00	21	8.22	21	18.15	21	21.24	Swedish	Johnson Line	377.0	51.3	24.0	Vancouver	Gothenberg	([16])	5,622	5,281	4,013
Liverpool Maru	21	6.55	21	9.10	21	18.25	21	18.25	Japanese	Kokusai Kisen Kobe	386.0	51.0	24.0	Portland	Europe	Wheat in bulk	7,595	5,919	4,400

[1] Tanker. [12] Motor ship. [13] For orders. [14] Grain, cottonseed, seed cakes, fruit. [15] Minerals, cotton, etc. [16] Wheat, fruit, coffee, general.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
June 15	Heredia	United Fruit Co	New Orleans via Habana.
June 15	Ulua	United Fruit Co	Port Limon.
June 17	Teutonia	Hamburg-American Line	Hamburg via wayports.
June 17	Toloa	United Fruit Co	New York via Habana.
June 17	Pellerin de Latouche	French Line	Havre via wayports.
June 17	Turrialba	United Fruit Co	New Orleans via Habana.
June 17	Jason [17]	U. S. Navy	Hampton Roads.

*DEPARTURES.

Date.	Vessel.	Line.	For—
June 15	Heredia	United Fruit Co	Bocas del Toro.
June 15	Ulua	United Fruit Co	New York via Habana.
June 17	Teutonia	Hamburg-American Line	Port Limon.
June 18	Heredia	United Fruit Co	New Orleans via Habana.
June 18	Toloa	United Fruit Co	Port Limon.
June 19	Santa Marta	United Fruit Co	Colombian ports.
June 19	Turrialba	United Fruit Co	New Orleans via wayports.

[17] Collier.

(Continued on page 674, column 2.)

(Continued from page 667)

in general eastbound cargo, and that the monthly totals for 1924 show comparatively little fluctuation.

WESTBOUND TRAFFIC.

In the westbound traffic there are no single commodities of the same importance as oil, nitrate, wheat, and lumber in the eastbound traffic, and the trend of trade is indicated most clearly by the figures showing the tonnage of cargo moving over various routes, as below:

WESTBOUND CARGO MOVING OVER VARIOUS TRADE ROUTES.

Route.	January.	February.	March.	April.	May.
United States intercoastal	234,037	210,388	242,341	200,865	231,798
United States to Far East	185,909	146,352	104,369	100,504	128,263
United States to South America	23,967	42,451	29,543	27,715	43,230
Europe to South America	51,350	38,913	69,863	51,539	83,562
Europe to United States	22,825	53,453	24,695	55,455	23,788
Europe to Canada	35,129	14,062	11,749	25,757	26,451
United States to Australasia	44,157	44,848	52,305	56,042	49,887
Europe to Australasia	39,054	58,434	22,268	46,380	61,004
Miscellaneous	45,884	70,914	66,415	70,772	64,361
Totals, 1924	682,312	679,815	623,548	635,029	712,344
Totals, 1923	598,743	563,439	678,488	653,369	742,351

TOTAL, BOTH DIRECTIONS.

These figures do not indicate any clear trend either of increase or decrease, but it will be noted that the grand total for May, 1924, exceeds that of any one of the preceding 4 months, but since March the monthly totals of westbound cargo have been less than in 1923. The grand total for the 5 months was 3,333,048 tons in 1924, and 3,236,390 tons in 1923, or to all intents the same.

GENERAL CONCLUSIONS.

The June traffic to date has been light, and it is now expected that the monthly totals will be lower than for any other month of the current fiscal year. The decline may continue, but it seems improbable that it will go very far before it is arrested by the various factors that make for a gradual but constant expansion.

Abrogation of the So-called Taft Agreement Between the United States and Panama.

By the President of the United States of America, A Proclamation—

Whereas, a Joint Resolution entitled a "Joint Resolution Authorizing the President to abrogate the international agreement embodied in certain Executive Orders relating to the Panama Canal," approved February 12, 1923, provides as follows:

"Whereas it is provided in the Act entitled, 'An Act to provide for the opening, maintenance, protection, and operation of the Panama Canal, and the sanitation and government of the Canal Zone,' approved August 24, 1912, 'that all laws, orders, regulations, and ordinances adopted and promulgated in the Canal Zone by order of the President for the government and sanitation of the Canal Zone, and the construction of the Panama Canal, are hereby ratified and confirmed as valid and binding until Congress shall otherwise provde;' and

"Whereas among the orders so ratified and confirmed as valid and binding are Executive Orders, issued by the Secretary of War, by direction of the President, on December 3, December 6, and December 28, 1904, January 7, 1905, and January 5, 1911, in which were embodied the terms of an agreement reached between the Secretary of War and officials of the Panama Government to serve as a modus operandi during the construction of the Canal; and

"Whereas the purpose of the agreement in question has passed with the formal

opening of the Canal, and the agreement no longer provides an adequate basis for the adjustment of questions arising out of the relations between the Canal Zone authorities and the Government of Panama, and should be replaced by a more permanent agreement;

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the President be authorized to abrogate the international agreement embodied in the Executive Orders issued as aforesaid, on December 3, December 6, and December 28, 1904, January 7, 1905, and January 5, 1911.

"SEC. 2. That when the President shall exercise the authority hereby granted, such orders shall no longer be valid and binding, and the legal effect of these orders given to them by the said Act of Congress approved August 24, 1912, shall be repealed."

Now, therefore, I, Calvin Coolidge, President of the United States of America, acting under and by virtue of the authority conferred in me by the said Joint Resolution of Congress, do hereby declare and proclaim, in accordance with notice of my intention heretofore given to the Government of Panama, the abrogation as of June 1, 1924, of the international agreement embodied in the Executive Orders issued as aforesaid, on December 3, December 6, and December 28, 1904, January 7, 1905, and January 5, 1911.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington this twenty-eighth day of May in the year of Our Lord one thousand nine hundred and twenty-four, and of the independence of the United States of America the one hundred and forty-eighth.

[SEAL] CALVIN COOLIDGE

By the President:

CHARLES E. HUGHES,
Secretary of State.

[No. 1699.]

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Three Weeks Ending June 21, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Venezuela	Pacific Mail Steamship Co	June 1	June 4	9	.....
Ecuador	Pacific Mail Steamship Co	June 2	June 3	140	.....
Jamaica	Pacific Steam Navigation Co	June 2	June 2	1	.....
Tsuyama Maru	Nippon Yusen Kaisha	June 3	June 4	235	.....
Dos Hermanos	R. Neuman	June 4	June 4	.....	[1] 23
Phoebus	German American Petroleum Co	June 5	June 5	4,986	.....
Almagro	Pacific Mail Steamship Co	June 6	June 6	88	.....
San Juan	Pacific Mail Steamship Co	June 6	June 6	.....	[1] 16
Ucayali	Peruvian Line	June 5	June 5	.....	[2] 100
Mincola	N. O. & S. A. S. S. Co	June 6	June 6	55	[1] 67
Jan Van Nassau	Royal Netherlands W. I. Mail	June 6	June 6	232	.....
Ramapo	U. S. Navy	June 7	June 10	10,000	.....
Ramapo	U. S. Navy	June 8	June 8	.....	69
George Washington	Norway-Pacific Line	June 9	June 10	1,184	.....
Newport	Pacific Mail Steamship Co	June 9	June 10	105	.....
Hoven	U. S. Shipping Board	June 13	June 14	10,435	.....
Lake Flattery	Panama Railroad Steamship Line	June 15	June 15	16	.....
Ginyo Maru	Toyo Kisen Kaisha	June 16	June 17	.....	16
Anyo Maru	Toyo Kisen Kaisha	June 17	June 18	[2] 656 [1] 67	.....
Atrato	Anglo-American Steamship Co	June 17	June 19	.....	178
Urubamba	Peruvian Line	June 17	June 17	25	.....
Montevideo	Spanish Line	June 20	June 20	213	.....
Newport	Pacific Mail Steamship Co	June 20	June 21	.....	5
Deroche	Union Oil Co	June 20	June 21	10,000	.....

[1] Transit. [2] Local.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective June 5, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.25
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.225
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.36
Oil, burning, colza	Gal.	1.06
Oil, engine, gas, in drums, class C medium	Gal.	.40
Oil, engine, gas, extra heavy, in cases, class C medium	Gal.	.54
Oil, engine, gas, extra heavy, in drums, class C medium	Gal.	.35
Oil, kerosene, in drums	Gal.	.19
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Zinc oxide, dry	Lb.	.13
Zinc oxide, in oil	Lb.	.125
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4, of the tariff.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in nearly 10 years of operation.

Official Circular.

Appointment.—Chief Health Officer.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., June 18, 1924.

To all concerned—Effective June 23, 1924, Col. Weston P. Chamberlain, Medical Corps, U. S. A., is appointed Chief Health Officer, *vice* Col. Henry C. Fisher, Medical Corps, U. S. A., relieved from duty with The Panama Canal.

JAY J. MORROW,
Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 670.

PORT OF CRISTOBAL—continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
June 18	Heredia	United Fruit Co	Bocas del Toro.
June 18	Santa Marta	United Fruit Co	New York via Kingston.
June 18	Scottish Borderer [1]	Anglo-Saxon Petroleum Co	Tampico.
June 18	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.
June 19	St. Mihiel [1 8]	U. S. Army	New York.
June 19	Carrillo	United Fruit Co	Colombian ports.
June 21	Venezuela	Royal Netherlands W. I. Mail	Port Limon.
June 21	Ulysses and Darien	Panama Railroad Steamship Line	Norfolk.
June 21	Oranian	Leyland Line	Liverpool via wayports.

[1] Tanker. [8] Transport.

*DEPARTURES.

Date.	Vessel.	Line.	For—
June 19	Carrillo	United Fruit Co	New York via Kingston.
June 19	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
June 20	Scottish Borderer	Anglo-Saxon Petroleum Co	Curaçao.
June 21	Pellerin de Latouche	French Line	Plymouth via wayports.

PORT OF BALBOA.

Date.	Vessel.	Line.	For—
June 13	Hover	Struthers & Barry	San Pedro.
June 16	Ginyo Maru	Toyo Kisen Kaisha	Valparaiso.
June 17	Anyo Maru	Toyo Kisen Kaisha	Hongkong.
June 20	Deroche	Union Oil Co. of California	Los Angeles.

Date.	Vessel.	Line.	For—
June 15	Hover	Struthers & Barry	San Pedro.
June 17	Ginyo Maru	Toyo Kisen Kaisha	Hongkong.
June 18	Anyo Maru	Toyo Kisen Kaisha	Valparaiso.
June 21	Deroche	Union Oil Co. of California	San Pedro.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., July 2, 1924. No. 47.

Traffic for Fiscal Year Sets New High Record.

Commercial traffic through the Canal in the month of June was 377 ocean-going ships, paying $1,792,821.22 in tolls, and 2 launches paying $13.20. This brings the total for the fiscal year ending June 30, 1923, to 5,230 commercial ships, paying $24,290,963.54 in tolls, and establishes a new high yearly record.

In the tabulation below are given the totals and averages for the fiscal year 1923, and the calendar year 1923, in comparison with the fiscal year 1924:

Year.	Totals.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
Fiscal year 1923	3,967	$17,508,414.85	10.87	$47,968.26
Calendar year 1923	5,037	22,966,838.18	13.80	62,922.87
Fiscal year 1924	5,230	24,290,963.54	14.29	66,368.75

Comparing the fiscal year 1924, with the calendar year 1923, the previous record year, shows the following: Transits, an increase of 193 or 3.8 per cent; tolls, an increase of $1,324,125.36 or 5.8 per cent. Comparison with the fiscal year 1923, shows an increase in transits of 1,263 or 31.8 per cent; and an increase in tolls of $6,782,548.69 or 38.7 per cent.

June, the last month of the fiscal year 1924, is the only month of that year in which the total commercial transits of the Canal fell below 400, and the daily average tolls collections below $60,000. In the following tabulation are given transits, tolls, and daily averages for each month of the fiscal year, together with the totals for each half year, and for the year with the corresponding daily averages.

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	474	$2,124,830.02	15.29	$68,542.90
August	454	2,050,656.97	14.65	66,150.12
September	413	1,902,453.61	13.77	63,415.12
October	427	1,988,607.69	13.77	64,148.63
November	436	2,058,188.61	14.53	68,606.29
December	506	2,335,729.81	16.32	75,346.12
Totals for first half year	2,710	12,460,466.71	14.73	67,719.93
January	476	2,216,855.01	15.35	71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
May	417	1,955,764.91	13.45	63,089.19
June	377	1,792,821.22	12.57	59,760.71
Totals for second half year	2,520	11,830,496.83	13.85	65,002.73
Totals for year	5,230	24,290,963.54	14.29	66,368.75

TRAFFIC DURING FIRST AND SECOND HALVES OF YEAR.

During the first half of the fiscal year 1924, 2,710 commercial vessels transited the Canal, as against 2,520 for the second half of the year, a decrease of 190 transits, or slightly over one per day.

The tolls collections for the first half of the year were $12,460,466.71, as against 11,830,496.83 for the second half of the year, a decrease of $629,969.88 or $3,461.37 per day.

EAST AND WESTBOUND TRAFFIC.

A total of 2,740 commercial vessels transited the Canal from the Atlantic to the Pacific, as compared with 2,490 from the Pacific to the Atlantic.

Tolls on the 2,740 vessels from the Atlantic to the Pacific were $11,799,194.47, as compared with $12,491,769.07 on the 2,490 vessels from the Pacific to the Atlantic.

Wheat Shipments.

On June 5, 1924, the British steamship *Trevithick* transited the Canal, carrying 10,300 long tons of wheat from Vancouver, B. C., to Hampton Roads, for orders, and on June 9, 1924, the Dutch steamship *Aldebaran* transited with 10,815 long tons of wheat from Vancouver to London, England. These two vessels carried a total of 21,115 long tons of wheat, which, at 60 pounds per bushel, is equivalent to 788,283⅓ bushels.

Prior to the season of 1923–1924 the bulk of the wheat passing through the Panama Canal was shipped during the fall months immediately after the harvest, but with the development of Vancouver as an outlet for western Canadian wheat, this route has become especially important in winter and early spring when the Great Lakes–St. Lawrence River route is closed to navigation, and it is now anticipated that there will be a constant flow of wheat from the Pacific coast of North America to Europe spread over the entire year, Vancouver contributing the heaviest tonnage, while California, Oregon, and Washington ports will maintain the volume of shipments during the slack season preceding the Canadian harvest.

In the following tabulation are shown the total shipments of wheat through the Canal from January 1, 1921, when complete commodity records were started, to May 31, 1924, showing principal localities or origin and destination:

Year.	Total shipments.	Origin.				Destination.		
		West coast United States.	West coast Canada.	West coast South America.	Miscellaneous.	East coast United States.	Europe.	Miscellaneous.
1921	914,877	853,884	3,500	13,751	43,742	50	893,381	21,446
1922	772,443	569,580	161,952	164	40,747	5	757,536	14,902
1923	682,576	271,977	392,991	2,703	14,905	9,500	651,573	21,503
1924 [1]	826,536	159,730	635,098	27,558	4,150	38,040	766,981	21,515

[1] The figures for the year 1924 are for the first 5 months only.

All the shipments referred to above are eastbound, there being practically no wheat westbound.

Shipments of wheat from the west coast of the United States have declined during the period covered by these statistics, but this has been offset by a rapid increase in shipments through Vancouver. From 90 to 97 per cent of all wheat through the Canal is destined to European ports.

Sugar Shipments Through Canal.

The Greek steamship *Kalypso Vergotti* passed through the Canal on June 21, 1924, carrying 6,562 long tons of sugar from Cuba to Shanghai, China. This is the second full cargo of sugar westbound through the Canal from Cuba during June, the other being the British steamship *Havenside* with 4,200 tons for Vancouver, B. C. June was the first month since April, 1922, in which shipments of sugar from the West Indies through the Canal were in excess of 10,000 long tons. In April, 1922, the westbound shipments were 36,123 tons.

During the calendar year 1921, there were 93,041 tons of sugar westbound through the Canal, 92,791 of which originated in the West Indies. During 1922 there were 160,074 tons, of which 132,352 originated in the West Indies, and 23,972 on the east coast of the United States. During 1923 there were 24,137 tons, of which 20,644 originated in the West Indies, and 3,461 on the east coast of the United States. During the first five months of 1924, there were 18,847 tons, of which 15,700 tons originated in the West Indies, and 3,107 on the east coast of the United States.

Shipments of sugar through the Canal from Pacific areas during the calendar year 1921, were 270,952 tons, the principal regions of origin being the Territory of Hawaii, 115,571 tons, South America, 87,999 tons, and the Far East 60,453 tons. During 1922 total shipments were 277,280 tons, the principal regions of origin being South America, 149,305 tons; Far East, 38,236 tons; Central America, 10,000 tons; and Hawaii, 8,055 tons. During 1923, total shipments were 254,683 tons, the principal regions of origin being South America, 172,885 tons; Philippines, 53,808 tons; Far East, 19,476 tons; and Central America, 8,419 tons. For the first 5 months of 1924, total shipments were 107,340 tons, the principal regions of origination being the Philippines, 48,804 tons; South America, 37,792 tons; Far East, 15,348 tons; and Central America, 5,096 tons.

Ships at Canal Repair Shops.

The following is a report of repairs to vessels at the Cristobal Shops for the two weeks ending June 30, 1924:

Steamship *Ulysses*, remetal dynamo bearing shells; manufactured 4 H. P. rings, 12 steel bolts for turbo-dynamo couplings, one set of crosshead brasses, and 4 sheaves for towing engine; renew 3 tubes in boiler and patch uptake; clean boilers; lengthen galley stack, etc.; dredge *No. 83*, dock, clean, and paint; renew bulkhead, line up gooseneck in ladder well; repair ladder, sanitary pump, piping, valves, liners for main pump, and "A" frame; examine sea valves, etc.; steamships *El Kantara*, repair two feed water strainers; calk and electric weld staytubes, staybolts, and cracks in 3 double end boilers; manufacture section for dynamo governor, one piston and piston rod for blower engine, and one section copper pipe as sample, etc.; barge *No. 195*, dock, clean, and paint; install wooden fenders all around; renew plates and angles as directed; renew rivets in seam on after end; test all tanks and stop all leaks, etc.; steamships *General W. C. Gorgas*, manufacture ash pan door hinges, and new chain sling for ash hoist; install new ash guard plate under after starboard boiler; repair fire tools, chisels, 4 cargo hooks, and leak in deck over galley range; renew guard over steam pipes on forecastle deck, etc.; *Jamaica*, dock, clean, and paint; repair guard plates and support for stokehold flooring; repair driving shaft for No. 3 winch and fit spare clutch and pinion on same; *Venezuela*, ream coupling holes on blower engine and manufacture 8 new coupling bolts and nuts complete; renew staybolt nut and weld boiler; straighten rudder and rudder hook; repair plumbing, etc.

Minor repairs—Steamships *Teutonia*, *Alrich*, *Scottish Borderer*, *Bennekom*, *Parismina*, *Mystic*, *Orinoco*, *Emidio*, *Arawa*, and *Corinto*, schooner *Impco*, U. S. A. M. P. *Graham*, barge *Darien*, and launch *Dorothy*.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 28, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Suffolk	21	14.55	22	6.25	22	13.39	22	14.35	American	Coastwise Transportation Co.	365.0	50.0	27.0	Mobile	San Francisco.	Sulphur and east iron pipes	5,783	4,839	3,305
Robert E. Hopkins [1]	21	21.58	22	7.15	22	14.23	22	15.30	American	Tidewater Oil Co	424.0	58.0	22.0	New York	San Pedro	Ballast		7,333	5,244
Republic	22	5.05	22	8.10	22	15.31	22	16.30	American	Chile Steamship Co	345.1	49.1	19.10	New York	Tocopilla	General	2,654	4,393	3,006
Agwibay [1]	22	6.23	22	9.24	22	16.24	22	17.35	American	Ward Line	468.3	62.7	17.11	New York	San Pedro	Ballast		9,776	6,903
Heluan	22	8.10	22	11.40	22	18.37	22	19.36	German	Kosmos Line	441.0	52.0	23.0	Hamburg	Corral	General	3,700	7,621	5,313
Relief [2]	22	20.50	22	20.55	23	2.25	23	5.35	American	Merritt & Chapman Wreck. Co	184.6	30.2	15.6	Kingston	Costa Rica	Ballast		911	327
Marore	22	17.35	23	6.20	23	14.18	23	15.20	American	Cre Steamship Co	550.3	72.2	22.8	New York	Cruz Grande	Ballast		15,551	4,297
E. T. Bedford [1]	23	7.38	23	8.05	23	15.27	23	16.40	American	Standard Oil Co	499.1	68.1	19.6	Montreal	San Pedro	Ballast		11,009	7,967
Cepolis [1]	23	17.00	24	6.15	24	13.44	26	14.35	British	Anglo-Saxon Petroleum Co.	400.0	52.2	27.3	Curacao	Balboa	Fuel oil	7,769	6,035	3,917
Walter Jennings [1]	23	23.00	24	7.37	24	14.21	24	18.00	American	Standard Oil Co	499.2	68.1	22.0	Norfolk	Talara	Ballast		11,037	7,995
Alameda [1]	24	5.50	24	8.20	24	15.49	24	16.45	American	United American Line	430.0	58.0	18.0	New York	Los Angeles	Ballast		7,425	5,097
Gargoyle [1]	24	9.47	24	9.55	24	16.34	24	17.35	American	Vacuum Oil Co	425.0	57.2	18.0	Paulsboro	San Francisco.	Lubricating oil	1,105	7,510	4,989
Urubamba	17	20.48	24	10.50	24	17.48	24	19.22	Peruvian	Peruvian Line	381.0	46.1	19.3	Cristobal	Buenaventura.	General	757	4,803	2,951
City of Manila.	24	13.25	24	13.40	24	20.14	24	21.24	British	Ellerman Lines, Ltd	475.0	58.2	24.0	New York	Yokohama	General	7,385	9,677	7,504
David McKelvy [1]	24	16.25	25	6.15	25	13.38	25	14.38	American	Tidewater Oil Co	430.0	59.2	19.0	New York	San Pedro	Ballast		7,629	5,393
Santa Rosa	24	1.50	25	6.01	25	14.20	25	15.25	American	Pacific Mail Steamship Co	404.6	53.9	23.4	Baltimore	San Francisco.	General, steel	5,870	6,754	4,780
Orinoco	24	18.45	25	7.22	25	15.12	25	16.35	American	Oriental Navigation Co	376.4	52.3	25.6	Norfolk	Pearl Harbor	Navy coal	6,747	5,455	3,902
Sagadahoe	25	3.10	25	7.30	25	15.35	25	16.40	American	Argonaut Steamship Line	420.5	54.2	20.6	Baltimore	Vancouver	General	8,700	7,340	5,342
Cape Cod [1]	25	5.00	25	8.15	25	16.02	25	17.25	American	Pure Oil Co	425.0	57.0	15.0	New York	San Pedro	Ballast		7,218	5,184
Lochgoil [3]	24	1.00	25	10.25	25	16.45	25	22.42	British	Royal Mail Steam Packet Co	485.6	62.3	23.5	Rotterdam	Vancouver	General	6,355½	10,803	7,606
Jacques Cartier	24	20.15	25	10.42	25	17.50	25	18.50	French	Cie. Gle. Transatlantique	473.4	59.8	26.6	Havre	Vancouver	General	7,344	10,068	7,083
Hessen	25	6.30	25	12.50	25	19.33	25	20.30	German	United American Line	468.0	58.0	20.6	Hamburg	Victoria	General	3,506	9,568	6,680
Marija Racie	25	0.50	25	13.15	25	21.43	26	11.49	Jugo-Slavie	G. Racich & Co	378.0	52.3	23.7	Blyth	Iquique	Coal	6,018	5,181	3,713
Suffolk	25	10.40	26	6.15	26	13.29	26	19.34	British	Federal Steam Navigation Co	460.0	58.2	28.1	Liverpool	Auckland	General	8,058	9,174	6,548
Arana	24	14.15	26	7.03	26	14.58	26	15.55	British	Pacific Steam Navigation Co.	303.4	43.0	23.0	New York	Callao	General	2,818	2,851	1,697
Andrea F. Luckenbach	25	13.30	26	8.35	26	18.32	26	19.34	American	Luckenbach Line	496.0	68.2	22.0	New York	Los Angeles	General, steel	6,800	11,487	8,762
Hazel Branch	25	21.05	26	9.30	26	16.43	26	17.40	British	F. and W. Ritson	400.0	52.3	19.0	Glasgow	Valparaiso	General	2,396	5,208	3,578
Makalla	26	23.13	26	11.30	26	18.23	26	20.27	British	Cunard Line	445.0	58.3	22.6	New York	Sydney	General	4,900	7,445	4,910
Polerie	26	13.05	26	13.20	26	20.32	26	21.36	British	Andrew Weir & Co	461.5	52.1	29.0	Norfolk	Manila	General	7,370	8,249	5,929
Alkmaar	26	6.15	27	6.08	27	13.40	28	0.53	Dutch	Royal Netherlands W. I. Mail	447.0	63.0	24.5	Hanburg	Guayaquil	General	6,694	9,505	6,644
Gudrun Maersk	26	18.40	27	6.15	27	14.34	27	15.42	Danish	A. P. Moller	360.0	51.2	26.8	Norfolk	Antofagasta	Coal	6,085	4,961	3,477
Kroonland	27	2.05	27	7.08	27	15.30	28	1.50	American	Panama-Pacific Line	560.0	60.2	24.0	New York	San Francisco.	General	1,280	13,514	9,127
Seattle Maru	27	4.50	27	7.30	27	16.25	27	15.15	Japanese	Osaka Shosen Kaisha	419.7	49.5	19.0	Buenos Aires	Kobe	General	523	6,226	4,118
Nitro [4]	27	6.33	27	8.50	27	17.08			American	U. S. Navy	462.0	60.0	23.0	Hampton R'ds	San Diego	Ammunition	3,200		

[1] Tanker. [2] Tug. [3] Motor ship. [4] Supply ship.

Poseidon	27	5.17	27	9.35	27	18.11	27	19.04	German	Hamburg-American Line	450.0	57.0	19.6	Hamburg	Guayaquil	General	2,800	7,684	5,234
Seekonk	27	7.52	27	10.50	27	19.24	27	20.20	American	United American Line	390.0	54.0	18.0	Baltimore	Seattle	General	3,544	6,162	4,417
Nowshera	27	9.10	27	11.08	27	18.47	27	19.50	British	British-India Steam Nav. Co.	450.0	58.0	26.6	New York	Sydney	General	5,437	8,207	5,427
Mexican	27	6.10	27	12.25	27	19.56	27	20.48	American	American-Hawaiian Line	472.3	57.2	22.10	Philadelphia	Los Angeles	General	5,305	9,258	6,874
Chattanooga City	26	23.45	27	13.50	27	20.46	27	21.49	American	Isthmian Line	424.2	56.2	25.2	Philadelphia	Manila	Steel, pipe, gen.	6,902	7,611	5,450
Acajutla	5–28	14.50	28	5.55	28	12.59	28	16.00	British	Pacific Steam Navigation	215.0	33.5	16.0	Cristobal	Champerico	General	927	1,273	706
Ecuador	27	11.55	28	6.12	28	13.27	29	1.14	American	Pacific Mail Steamship Co	380.0	48.7	23.4	New York	San Francisco	General	2,937	5,926	4,178
Mundelta	27	15.40	28	7.00	28	14.50	28	15.35	American	Munson Line	370.0	53.2	17.0	Baltimore	Seattle	General	3,300	5,668	4,297
Yamagata Maru	27	17.00	28	7.00	28	15.24	28	16.35	Japanese	Nippon Yusen Kaisha	345.0	50.0	24.0	Boca Grande	Yokohama	Phosphate rock	4,500	4,338	2,915
Hanley	27	21.15	28	8.05	28	16.10	28	17.20	American	Norton Lilly & Co	440.0	56.0	18.0	Baltimore	Everett	Coal	3,025	8,301	5,995
Corinthic	28	2.00	28	13.20	28	21.00	28	22 02	British	Shaw, Savill & Albion Co	500.3	63.3	30.3	London	Auckland	General	8,038	12,821	9,507
North American	28	4.00	28	13.30	28	21.36	28	22.54	British	Halser Co	251.0	43.6	21.0	New York	Vancouver	(5)	3,102	2,444	1,571

5 Coal and railroad materials.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Piaka	22	2.00	22	7.12	22	14.10	22	16.55	British	New Zealand Shipping Co	450.0	58.2	21.6	Port Chalmers	Glasgow	(7)	4,098	8,459	6,060
Zenon	22	3.00	22	7.36	22	14.55	22	15.45	French	Cie Gle. Transatlantique	425.0	55.0	27.10	Vancouver	Antwerp	(8)	7,392	6,982	4,834
Diana Dollar	22	5.00	22	8.29	22	16.50	23	6.08	American	Dollar Line	429.0	55.2	26.0	Seattle	Baltimore	Lumber, general.	8,000	7,582	5,521
Santa Olivia	22	10.00	22	10.49	22	17.07	22	17.07	American	Pacific Mail Steamship Co	404.6	53.9	21.0	San Francisco	New York	General	3,225	6,779	4,291
Edward Luckenbach	22	10.30	22	11.23	22	18.28	22	18.28	American	Luckenbach Line	436.6	57.2	28.6	Portland	Boston	Lumber, general.	7,099	8,543	6,427
Satsuma	22	11.00	22	12.06	22	21.50	22	23.50	American	Barber Line	370.3	48.7	26.10	Bangkok	Habana	Rice	6,660	5,370	3,910
Swift Arrow [1]	22	6.30	22	13.12	22	22.35	22	22.35	American	C. D. Mallory & Co., N. Y.	464.6	60.2	25.0	San Francisco	Fall River	California tops	10,083	8,473	6,050
Centaurus	22	18.40	23	6.10	23	14.35	23	14.35	American	Planet Line	409.8	54.2	24.0	Seattle	Baltimore	Lumber, orc, etc.	6,852	6,581	4,795
Sonora	23	6.15	23	7.05	23	15.25	23	16.50	French	Cie. Gle. Transatlantique	388.7	54.1	25 0	Vancouver	Bordeaux	Wheat in bulk	7,934	6,394	4,515
Queen Alexandra	23	7.40	23	8.27	23	16.10	23	17.35	British	Rhondda Merthyr & Co	270.0	50.9	23.0	Portland	Gibraltar	Wheat	6,671	4,690	3,217
Santa Luisa	23	5 30	23	9.31	23	16.20	23	21.10	American	Grace Line	360.2	51.6	25.6	Antofagasta	New York	General	4,050	5,694	3,975
G. Harrison Smith [1]	23	15.09	23	16.45	24	12.55	24	12.55	British	International Petroleum Co	550.6	72.3	31.6	Talara, Peru	New York	Peruvian crude	18,051	15,476	10,751
Camilla Gilbert	23	14.30	24	6.10	24	14.05	24	16.00	Norwegian	Willy C. Gilbert	400.2	53.0	26.0	New West'ster	Antwerp	Lumber, ore	8,000	6,199	4,513
Sachen	23	14.45	24	6.52	24	14.37	24	14.37	German	United American Lines	468.5	58.2	28.4	Seattle	Antwerp	General	8,500	9,624	6,732
Chaumont	22	15.15	24	7.35	24	15.50	25	1.00	American	U. S. Navy	448.0	58.2	23.0	Shanghai	New York	(9)	531	8,407	5,212
Jamaica	23	18.00	24	7.45	24	16.41			British	Pacific Steam Navigation Co	229.0	33.10	12.3	Tamaco	Cristobal	General	581	1,187	622
Cauca	23	18.00	24	8.13	24	14.30			British	Pacific Steam Navigation Co	246.0	35.3	14.5	Champerico	Cristobal	Coffee, hides, gen	378	1,589	1,018
Californian [6]	23	20.45	24	8.52	24	17.10	24	17.10	American	American Hawaiian Line	445.1	59.8	23.6	Seattle	Boston	Lumber, general.	6,100	8,567	6,020
El Kantara	23	21.00	24	9.24	24	18.15			French	Messageries Maritimes Co	447.2	52.0	23.8	Noumea	Marseilles	General	3,722	7,357	4,983
Tuxpanoil [1]	24	9.40	24	10.23	24	18.45	24	23.50	American	McAllister Brothers	431.0	59.2	26.0	San Pedro	Baltimore	Crude oil	10,000	7,862	5,049
Sun [1]	24	6.30	24	10.44	24	18.58	24	18.58	American	Sun Oil Co	382.0	49.9	23.0	San Francisco	Jacksonville	Gasoline	6,000	5,020	3,324
San Francisco	24	10 15	24	11.18	24	20.20	25	0.30	American	Isthmian Lines	405.0	52.0	23.0	Seattle	New York	Lumber	5,604	6,220	4,432
William A. McKinney	24	13.30	24	15.08	24	22.20	25	1.35	American	Munson Line	395.0	55.1	23.6	Seattle	New York	Lumber	7,000	6,993	4,990
Teesbridge	24	15.50	25	6.13	25	14.42	25	14.42	British	Ardmore Coal & Steamship Co	340.6	47.2	24.0	Mejillones	New York	(10)	5,810	4,338	3,184
Emidio [1]	24	14.40	25	7.15	25	16.38	25	16.38	American	General Petroleum Corporation	435.0	56.2	29.0	San Pedro	Thameshaven	Gasoline	8,500	7,433	5,058
Bordeaux Maru	24	16.50	25	8.10	25	17.20	25	17.30	Japanese	Kabushiki Kaisha Kawasaki	405.0	53.0	28.6	Vancouver	Plymouth	Wheat	8,000	7,032	5,128

1 Tanker. 6 Motor ship. 7 Frozen products and general. 8 Wheat, wood, canned goods. 9 Army, Navy, and Marine Corps household and general navy cargo.
10 Copper bars and copper ore.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Vistula [1]	24	20.15	25	9.09	25	17.50	25	17.50	Danzig	([11])	500.0	64.0	28.0	San Pedro	Montreal	Crude oil	13,763	10,604	8,167
Henry S. Grove	25	1.00	25	9.59	25	18.10	25	18.10	American	Nautilus Steamship Corporation.	404.6	53.9	24.0	Seattle	Baltimore	Lumber, general.	6,286	6,755	4,688
Arawa	25	10.00	25	11.10	25	19.10	26	12.20	British	Shaw, Savill & Albion Co.	460.0	60.5	24.8	Wellington	London	Frozen, general..	6,000	10,035	7,504
H. M. Storey [1]	25	11.45	25	12.29	25	20.45	25	20.45	American	Standard Oil Co. of California.	500.0	68.2	29.6	Los Angeles	New York	Crude oil	15,076	11,224	7,849
Rhine Maru	25	17.15	26	6.10	26	14.15	26	14.15	Japanese	Kawasaki Dockyard Co	405.0	53.0	28.0	Iquique	Delaware Riv.	Nitrate of soda..	9,030	7,044	5,136
Eemdijk	25	17.45	26	7.09	26	15.30	26	19.35	Dutch	Holland-American Line	469.7	58.2	26.0	Seattle	Rotterdam	General	9,530	8,514	6,066
Aladdin [1]	25	22.15	26	8.21	26	16.25	26	16.25	American	Standard Transportation Co.	435.6	56.2	28.6	Los Angeles	New York	Crude oil	9,500	7,408	6,961
Corinto	25	14.55	26	9.23	26	16.55	.....	.....	American	Pacific Mail Steamship Co	261.0	40.0	14.0	San Francisco.	Cristobal	([12])	1,144	2,352	1,549
Samuel Q. Brown [1]	26	9.40	26	10.31	26	18.45	26	21.40	American	Tidewater Oil Co	424.4	58.2	27.0	Los Angeles	New York	Crude oil	10,250	7,333	5,246
Leon XIII	26	6.15	26	12.45	26	19.48	27	16.04	Spanish	Compania Transatlantica	410.1	46.0	22.6	Valparaiso	Barcelona	General	142	5,221	3,729
Agwisea [1]	26	12.20	26	13.10	26	21.53	26	22.10	American	International Shipping Corp.	468.3	62.7	28.3	Los Angeles	New York	Crude oil (bulk)	12,400	9,802	6,961
Canadian Transporter	27	4.10	27	7.20	27	15.20	27	21.40	British	Canadian Govt. Mer. Marine	400.0	52.4	23.6	Vancouver	Avonmouth	Lumber, grain	6,800	6,228	4,491
Point Lobos	27	7.35	27	12.59	27	20.35	27	20.35	American	Swayne & Hoyt, Inc	289.0	44.1	19.0	Portland, Ore.	New Orleans	Lumber, general.	2,150	2,895	1,967
Mount Clinton	27	11.40	27	12.26	27	19.10	27	19.10	American	United American Lines	440.3	57.2	27.6	Portland	New York	General	7,377	8,141	5,298
Navarino	27	13.40	27	14.46	27	22.22	27	23.10	British	Chile Steamship Co	400.0	52.0	25.6	Antofagasta	New York	([13])	7,507	5,770	4,182
Lebore	27	10.35	27	15.36	28	13.40	28	13.40	American	Ore Steamship Co	549.6	72.3	34.0	Cruz Grande	Baltimore	Iron ore	19,600	14,325	4,635
Rochester	.....	.....	28	6.22	28	14.20	.....	.....	American	U. S. Navy	368.0	66.0	.....	Balboa	Cristobal	Ballast	.....	.....	.....
Dixie Arrow [1]	27	13.47	28	7.12	28	17.48	28	17.48	American	Standard Transportation Co.	468.3	62.7	27.6	Los Angeles	New York	Crude oil	12,226	9,744	7,140
Denderah	26	23.55	28	12.12	28	19.20	29	2.42	German	German Austral & Kosmos Line.	360.5	51.0	16.0	Champerico	Cuba	([14])	320	4,924	3,524

[1] Tanker. [11] Baltisch Amerikanische Petroleum Import Gesellschart M. B. H. [12] General merchandise, coffee, logs, hides, and skins. [13] Copper bars and nitrates. [14] Balsam, lumber, and honey.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 22	Toloa	United Fruit Co	Port Limon.	June 22	Venezuela	Royal Netherlands W. I. Mail	Amsterdam via wayports.
June 22	Cartago	United Fruit Co	New Orleans via Habana.	June 22	Cartago	United Fruit Co	Bocas del Toro.
June 22	Fulton & submarines.	U. S. Navy	High seas.	June 22	Toloa	United Fruit Co	New York via Habana.
June 22	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.	June 23	Oranian	Leyland Line	Kingston, Jamaica.
June 23	Camden	United Fruit Co	Baytown.	June 23	St. Mihiel [15]	U. S. Army	New York via San Juan.
June 24	Calamares	United Fruit Co	New York via Habana.	June 24	Camden	United Fruit Co	Santa Marta, Colombia.

[15] Transport.

* Other than ships passing through the Canal.

(Continued on page 682, column 2.)

Fuel Oil Bunkering Records.

Information that has just reached the Canal Zone leads to the belief that the world's record for bunker deliveries of fuel oil to ships is held by the fuel oil handling plant at Balboa.

An issue of the *California Oil World*, commenting on a delivery of 11,414 barrels of fuel oil into the bunker tanks of the steamship *John D. Archbold* in 5 hours and 41 minutes at the Wilmington, Calif., plant of the California Petroleum Corporation, has the following to say:

> It might be noted that the flow of bunker oil, approximately 2,500 barrels per hour, is also greater than any figures ever made on the coast, if not in the entire world.

Masters of vessels taking oil at Balboa have commented most favorably on deliveries made by the Balboa oil handling plant, and in several instances have stated that they have found no bunkering plant in any part of the world to compete with Balboa.

The delivery to the *John D. Archbold* at Wilmington does not equal several records made by the Balboa plant. The steamship *Bethore* of the Ore Steamship Line holds the record for taking bunker oil at Balboa, with an average of 3,854 barrels per hour; 1,354 barrels per hour more, or at a rate approximately 50 per cent greater, than that of the *John D. Archbold*.

Among some of the best deliveries at Balboa are the following:

Date.	Vessel.	Quantity in barrels.	Delivery time.	Average barrels per hour.
			Hrs. Mins.	
September 23, 1923..	Marore	9,878	2.50	3,522
May 25, 1923.....	W. E. Hutton	3,490	1.00	3,490
September 26, 1923..	Chilore	7,777	2.15	3,464
April 25, 1924.....	Rotorua	14,262	4.10	3,428
June 14, 1923.....	Bethore	9,635	2 30	3,854
May 17, 1924.....	Oroya	7,393	2.20	3,039

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective June 25, 1924:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.21
Brass, sheet, average	Lb.	.50
Bronze, Tobin, average	Lb.	.25
Gasoline, motor grade	Gal.	.225
Metal, yellow	Lb.	.225
Oakum, Navy, spun	Lb.	.125
Oakum, Navy, unspun	Lb.	.125
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	2.35
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.70
Oil, ammonia, cylinder	Gal.	.36
Oil, burning	Gal.	1.06
Oil, engine, gas, in drums	Gal.	.46
Oil, engine, gas, extra heavy, in cases	Gal.	.66
Oil, engine, gas, extra heavy, in drums	Gal.	.56
Oil, kerosene, in drums	Gal.	.19
Oil, marine engine	Gal.	.56
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.125
Paint, zinc oxide, in oil	Lb.	.135
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.09
Grease, yellow, cup, No. 5	Lb.	.10
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.17

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line. The Pacific Mail and Chilean Line charge $6 for the trip, the others $10. The several services together afford about 4 transits of the Canal each way every week.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD, are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal. Washington, D. C.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 680.

PORT OF CRISTOBAL—Continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
June 24	Abangarez	United Fruit Co.	New Orleans via Habana.
June 24	San Blas	American Banana Corporation	Colon.
June 25	Cartago	United Fruit Co.	Bocas del Toro.
June 25	Metapan	United Fruit Co.	New York via Kingston.
June 25	Santa Marta	United Fruit Co.	Colombian ports.
June 26	Impco [16]	Colon Import Co.	Colon.
June 28	Coronado	Elder & Fyffes, Ltd.	Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
June 25	Ulysses and Darien	Panama Railroad Steamship Line	Norfolk.
June 25	Cartago	United Fruit Co.	New Orleans via Habana.
June 25	Jason [17]	Panama Railroad Steamship Line	High seas.
June 25	Calamares	United Fruit Co.	Port Limon.
June 26	Santa Marta	United Fruit Co.	New York via Kingston.
June 26	Metapan	United Fruit Co.	Colombian ports.
June 26	Abangarez	United Fruit Co.	New Orleans via wayports.
June 28	Coronado	Elders & Fyffes, Ltd.	Bristol via Kingston.

[16] Motor schooner. [17] Collier.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
June 23	Ranenfjord	Latin-American Line	Tacoma.
June 27	Dos Hermanos	B. Shippritt	Panama City.

Date.	Vessel.	Line.	For—
June 25	Ranenfjord	Latin-American Line	San Antonio, Chile.
June 27	Dos Hermanos	B. Shippritt	Chame.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Ten Fiscal Years' Traffic Through Canal.

June, 1924, completed the fiscal year 1924, the tenth fiscal year of operation. The year established a new high record for traffic through the Canal. During the year 5,230 commercial vessels and 418 United States Government vessels, a total of 5,648 ocean-going ships, transited the Canal. In addition there were 138 passages of launches, measuring under 20 tons each.

Tolls on the 5,230 commercial vessels were $24,290,963.54 and on the launches $529.25, making a total tolls collection for the year of $24,291,492.79 or a monthly average of $2,024,291.07. Had tolls been assessed on the government vessels at commercial rates there would have been added to these figures approximately $1,106,445.37, bringing the total for the year to $25,397,938.16, and the average monthly collections to $2,116,494.85.

The 5,230 commercial vessels carried 26,994,710 long tons of cargo and the 418 government vessels 224,218 tons making the total cargo through the Canal for the year 27,218,928 long tons or a monthly average of 2,268,244 tons.

In the following tabulation are given the total commercial transits, Panama Canal net tonnage, tolls collected, and cargo carried by commercial vessels transiting the Canal for each of the 10 fiscal years 1915 to 1924, inclusive, with totals for the whole period:

Fiscal year ending June 30.	Number of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
1915 [1]	1,075	3,792,572	$4,367,550.19	4,888,454
1916 [2]	758	2,396,162	2,408,089.62	3,094,114
1917	1,803	5,798,557	5,627,463.05	7,058,563
1918	2,069	6,574,073	6,438,853.15	7,532,031
1919	2,024	6,124,990	6,172,828.59	6,916,621
1920	2,478	8,546,044	8,513,933.15	9,374,499
1921	2,892	11,415,876	11,276,889.91	11,599,214
1922	2,736	11,417,459	11,197,832.41	10,884,910
1923	3,967	18,605,786	17,508,414.85	19,567,875
1924	5,230	26,148,878	24,290,963.54	26,994,710
Totals	25,032	100,820,397	97,802,818.46	107,910,991

[1] Canal opened to traffic August 15, 1914. [2] Canal closed to traffic approximately 7 months of fiscal year by slides.

The fiscal year 1924 as compared with the fiscal year 1923 shows the following: Transits, an increase of 1,263 or 31.8 per cent; Panama Canal net tonnage, an increase of 7,543,092 tons, or 40.5 per cent; tolls, an increase of $6,782,548.69 or 38.7 per cent; cargo carried 7,426,835 tons, or 37.4 per cent.

Segregating the 10 years' traffic by direction shows the traffic very evenly divided excepting as to cargo, the westbound showing a slightly larger number of transits and a slightly higher Panama Canal net

(Continued on page 687.)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 5, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Frogner	28	14.35	29	6.15	29	13.24	29	14.30	Norwegian..	Fearnley & Eger	407.1	53.8	14.11	Boston	Tocopilla	Ballast		7,010	5,310
Argon [1]	28	17.20	29	7.15	29	14.08	29	15.00	American...	Standard Transportation Co.	435.6	56.2	19.0	New York	San Francisco.	Ballast		7,386	5,183
Willet [2]	29	9.40	29	13.02	29	19.38	29	21.07	American...	Merritt, Chapman & Scott (S.B.)	181.6	35.0	12.6	Kingston	Pacific ports..	Ballast		809	223
Canadian Importer	29	3.37	29	8.35	29	15.39	29	16.30	British	Canadian Govt. Mer. Marine...	400.0	52.0	17.3	Montreal	Vancouver	General	1,700	5,891	4,186
Agwilake [1]	29	20.15	30	6.27	30	13.36	30	14.42	American...	International Shipping Co.	468.3	62.7	21.0	Baltimore	San Pedro	Ballast		9,802	6,957
Canadian Highlander	30	2.05	30	7.33	30	14.30	30	15.30	British	Canadian Govt. Mer. Marine...	400.0	52.4	16.10	Glasgow	Vancouver	General	1,906½	6,192	4,402
Sumanco	30	7.50	30	8.15	30	16.05	30	17.08	American...	Transmarine Line	324.0	46.2	22.0	Newark	San Francisco.	Iron pipes, gen..	3,800	3,984	2,612
Rochelle	30	18.05	7–1	6.06	7–1	14.27	7–1	15.37	British	Pacific Land Co.	241.0	36.0	16.4	Pto. Mexico	San Jose	Case oil	1,406	1,661	1,041
Foldenfjord [1]	30	20.10	1	6.20	1	13.20	1	14.26	Norwegian..	Anglo-Saxon Petroleum Co.	430.0	59.0	15.7	Hull	San Pedro	Ballast		7,780	5,520
Bantu	30	21.45	1	7.15	1	14.58	1	20.45	American...	Isthmian Line	360.0	47.0	25.8	New York	Buenaventura.	General, steel	5,479	4,607	3,032
Catherine G. G. Sudden	7–1	7.25	1	8.20	1	15.50	2	7.25	American...	Sudden & Christensen	277.0	43.0	18.0	Galveston	Portland	Sulphur	2,750	2,404	1,506
Agwimoon [1]	1	18.03	2	6.18	2	13.39	2	14.45	American...	International Shipping Co.	429.0	59.2	20.0	Boston	San Francisco.	Ballast		7,695	5,402
James McGee [1]	1	20.20	2	6.30	2	14.44	2	16.00	American...	Standard Oil Co.	499.1	68.2	28.0	Norfolk	San Pedro	Crude oil	11,500	10,964	7,909
Port Curtis	1	21.10	2	7.34	2	15.48	2	16.55	British	Commonwealth & Dom. Line...	450.0	58.0	26.0	London	Wellington	General	3,791	8,500	6,140
Standard [1]	1	21.30	2	7.42	2	15.20	2	16.30	American...	Standard Oil Co.	523.0	68.0	20.0	New York	San Pedro	Ballast		12,171	8,782
K. I. Luckenbach	2	2.35	2	8.30	2	16.28	3	2.19	American...	Luckenbach Line	446.0	56.7	26.6	New York	San Pedro	General	8,500	8,552	6,236
Almagro	1	3.40	2	8.45	2	16.32	2	15.30	British	Pacific Steam Navigation Co.	303.4	43.0	16.6	New York	Coronel	General	1,377	2,878	1,714
Silverelm [3]	2	2.10	2	9.40	2	17.08	2	18.25	British	Silvercedar Shipping Co.	375.0	52.6	26.0	Norfolk	Shanghai	General	7,000	6,097	4,680
Kabinga	2	5.40	2	10.50	2	18.27	2	19.26	British	Ellerman & Bucknall Line.	400.0	52.1	23.10	New York	Melbourne	Gasoline, general	4,760	6,048	4,514
Saint Louis	1	18.55	2	12.08	2	19.08	2	20.15	French	French Line	398.0	50.0	17.4	Antwerp	Talcahuano	General	556	5,857	4,166
El Condado	2	10.05	2	13.15	2	20.25	3	6.45	Spanish	Cia. General Navegacione.	330.6	48.0	11.0	Cardiff	Caleta Buena.	Ballast		3,730	2,637
Santa Elisa	2	17.03	3	6.01	3	13.21	3	17.40	American...	Grace Line	360.3	51.7	25.2	New York	Talcahuano	General	2,884	5,947	4,325
Jamaica	6–24	16.41	3	6.05	3	13.47	3	18.34	British	Pacific Steam Navigation Co.	220.0	33.1	14.2	Cristobal	Guayaquil	General	937	1,187	622
Victolite [1]	7–2	17.30	3	7.15	3	14.18	3	15.35	British	Imperial Oil Co.	500.4	68.0	20.0	Charleston	Talara	Ballast		11,049	7,732
Victorious	2	21.50	3	8.25	3	16.26	3	17.40	American...	Tampa Interocean Co. (S. B.).	440.0	56.0	24.0	New Orleans	Honolulu	General	6,756	8,328	6,036
Tsad	2	20.57	3	12.15	3	18.45	3	19.49	German	Hamburg-American Line	355.8	44.0	21.3	Hamburg	Puntarenas	General	1,900	4,227	2,716
War Sudra	3	12.30	3	13.00	3	20.10	3	21.13	British	British Government	400.9	52.0	27.0	Trinidad	Callao	Fuel oil	7,410	6,054	4,191
Lieut. David Putnam [4]			3		3	10.27			American...	U. S. Army				Cristobal	Gamboa	Ballast			
Santa Tecla	3	15.55	4	6.25	4	13.10	4	18.02	American...	N. O. & S. A. Line	298.6	40.0	18.7	New Orleans	Talcahuano	General	1,454	2,832	1,803
Missourian [3]	3	20.25	4	7.10	4	13.34	4	14.05	American...	American-Hawaiian Line	445.1	59.8	22.0	Philadelphia	Los Angeles	General	4,250	8,567	6,020
Orient City	4	6.10	4	9.25	4	17.05	4	18.25	British	St. Just Steamship Co.	396.5	53.5	27.0	Port Arthur	Auckland	General	6,743	5,682	3,919
City of Canton	4	7.05	4	10.00	4	18.35	4	20.17	British	Hall Line, Ltd.	450.0	56.0	27.0	New York	Melbourne	Case oil, general	6,328	8,127	6,134
President Polk	4	4.25	4	11.00	4	19.23	5	12.35	American...	Dollar Line	502.1	62.2	24.0	New York	San Francisco.	General	2,660	12,031	8,443

[1] Tanker. [2] Tug. [3] Motor ship [4] Launch.

La Paz [4]	4	0.55	4	11.20	4	20.15	5	2.08	British	Pacific Steam Navigation Co	406.0	54.0	21 5	Hull	Corral	Coal, general	5,144	7,216	4,912
Helder	4	6.40	4	13.07	4	20.21	4	21.37	Dutch	Royal Netherlands W. I. Mail	362.0	50.0	25.0	Hamburg	Guayaquil	General	4,940	5,117	3,807
Belgium Maru	4	13.05	4	13.20	4	21.38	5	2.08	Japanese	T. Ono	385.0	51.0	22.0	Newport News	Antofagasta	Coal	4,620	6,219	4,611
Baldhill [1]	4	17.15	5	6.20	5	13.44	5	15.10	American	Walker & Daly (S. B.)	416.9	56.2	22.0	Fall River	San Pedro	Ballast		6,728	4,692
District of Columbia [1]	4	19.10	5	6.45	5	15.26	5	21.35	American	Walker & Daly (S. B.)	431.0	59.2	18.0	New York	San Pedro	Ballast		8,097	5,431
John D. Archbold [1]	4	21.00	5	7.15	5	14.56	5	16.05	American	Standard Oil Co	554.9	75.3	19.0	New York	San Pedro	Ballast		14,785	10,313
Willfaro	5	2.25	5	8.00	5	15.42	5	18.40	American	Williams Line	386.8	52.2	17.10	Philadelphia	Seattle	General, steel	3,288	5,684	4,113
Santa Cecilia	5	6.35	5	8.16	5	16.13	5	17.25	American	Planet Line	405.0	53.0	26.8	Baltimore	Seattle	Steel, general	7,543	6,745	4,562
H. H. Rogers [1]	3	22.15	5	8.30	5	16.43	5	17.55	American	Standard Oil Co	500.0	68.0	16.6	Baytown	San Pedro	Ballast		10,333	7,475
Guardian [5]	3	12.35	5	9.50	5	17.00			American	All-America Cables, Inc	278.0	36.0	18.6	Cristobal	Balboa	Ballast			
Frank Lynch [4]	5	8.35	5	9.52	5	17.33	5	20.51	American	W. J. Gray & Co	252.0	43.5	19.0	New Orleans	Seattle	General	2,400	2,283	1,369
Corinto	6–26	16.55	5	11.07	5	17.33	5	19.22	American	Pacific Mail Steamship Co	261.0	40.0	18.1	Cristobal	San Francisco	General	2,124	2,352	1,549
Ampullaria [1]	7–5	6.48	5	11.30	5	18.11	5	19.20	British	Anglo-Saxon Petroleum Co	412.5	53.8	21.6	Rotterdam	San Pedro	Ballast		6,242	4,320
London Shipper	5	13.10	5	13.20	5	21.54	6	4.00	British	Furness, Withy & Co., Ltd	450.4	58.0	17.8	Glasgow	Vancouver	General	1,100	8,412	5,854
Ansaldo San Giorgio III [4]	4	17.25	5	14.00	5	22.35	6	6.30	Italian	Transatlantica Italiana	385.7	51.7	16.5	Marseilles	Valparaiso	General	1,863	5,759	4,003

[1] Tanker. [4] Motor ship. [5] Cable ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

O-6 [6]			29	7.00	29	13.10			American	U. S. Navy				Balboa	Cristobal				
F. H. Hillman [1]	29	6.50	29	7.51	29	18.34	30	0.30	American	Standard Oil Co. of California	500.0	68.2	28.10	San Pedro	London	Gasoline	13,800	11,225	7,913
Harry Luckenbach	29	7.15	29	8.25	29	18.12	29	22.55	American	Luckenbach Line	448.9	60.2	26.0	San Pedro	New York	General, lumber	7,922	9,692	6,853
William N. Page	29	11.02	29	12.15	29	19.55	29	20.50	American	Castner, Curran, & Bullitt	368.6	55.2	28.3	Grays Harbor	New York	Lumber	6,900	5,711	3,615
Odin	29	17.50	30	6.09	30	13.50	30	14.22	German	Seereederei Frigga	369.2	50.9	21.6	Astoria	Newcastle	Lumber	3,534	4,882	3,619
Essequibo	30	1.30	30	8.35	30	15.00	7–1	0.40	British	Pacific Steam Navigation Co	460.3	57.6	24.10	Talcahuano	New York	(7)	2,711	9,099	6,117
Ansgir	30	8.00	30	9.39	30	17.05	30	21.15	German	Roland Line	393.1	54.3	25.8	Coronel	Hamburg	General	7,670	6,542	4,532
London Importer	30	5.00	30	13.08	30	19.52	30	19.52	British	Furness, Withy & Co., Ltd	450.4	58.0	28.6	Vancouver	London	Bulk, wheat, gen	10,426	8,405	5,903
Toba Maru	29	23.40	7–1	6.16	7–1	13.40	7–1	20.10	Japanese	Nippon Yusen Kisen Kaisha	445.0	58.0	19.6	Iloilo, P. I.	New York	General	5,600	8,058	5,743
Kentuckian	30	22.45	1	7.15	1	14.45	1	14.45	American	American-Hawaiian Line	414.5	53.7	23.6	Seattle	Boston	Lumber, general	4,658	7,049	4,941
Willpolo	1	5.00	1	8.16	1	16.05	1	16.05	American	Williams Steamship Line	386.8	52.2	23.6	Seattle	New York	Lumber, general	6,275	5,680	4,080
Georgian	1	12.37	1	13.20	1	20.00	1	20.00	American	American-Hawaiian Line	386.8	52.2	22.6	Tacoma	New York	Lumber	5,283	5,719	4,023
Wilfred	1	15.25	2	6.19	2	15.15	2	16.35	Norwegian	Andrew Weir & Co	339.1	48.2	22.6	Iquique	Alexandria	Nitrates	5,400	4,069	3,107
Laura C. Hall	1	14.25	2	6.25	2	14.45			British	Pacific Metal Transport. Co	81.0	25.6	9.0	Buenaventura	Cristobal	Platinum, gold	(8)	132	72
Sutermeo	1	17.25	2	7.11	2	15.55	2	15.55	American	Transmarine Corporation	324.0	46.2	21.6	San Francisco	New York	Lumber, general	3,500	3,984	2,612
Mount Berwyn	1	17.25	2	8.10	2	17.00	2	17.00	British	H. E. Moss & Co	400.8	52.3	26.0	Antofagasta	Wilmington	Nitrate of soda	7,670	5,783	3,990
El Grillo [1]	1	19.30	2	7.28	2	17.20	2	18.08	Britisb	C. T. Bowring & Co	440.0	57.5	27.3	Talara	Halifax	Crude oil	9,575	7,468	5,042
Imlay [1]	2	5.48	2	10.19	2	18.45	2	20.25	American	C. D. Mallory & Co., Inc	425.8	57.0	27.6	San Pedro	Philadelphia	Crude oil	10,000	7,218	4,959
Guardian [5]	2	15.10	3	6.19	3	12.25	5	9.50	American	All-America Cables, Inc	278.4	36.0	15.10	Callao, Peru	Colon	Ballast		1,860	950
Hermion	2	15.50	3	6.35	3	14.20	3	15.00	Norwegian	Bruusgaard Kiosterud & Co	389.8	54.0	24.0	Victoria, B. C.	Boston	Lumber, pulp	5,962	5,746	4,232
Eastern Planet	2	19.30	3	7.09	3	15.25	3	17.05	American	U. S. & Australasia Lines, Inc	384.8	51.2	17.6	Melbourne	New York	(9)	925	6,235	4,480
Watertown [1]	2	20.50	3	7.37	3	16.33	3	16.33	American	Cities Service Transport. Co	416.9	56.2	27.9	San Pedro	Boston	Crude oil	9,000	6,706	4,766
Ederton	2	4.15	3	8.30	3	17.10	4	6.10	American	Tampa Interocean Steamship Co	409.6	54.2	25.6	Shanghai	New York	General	8,017	7,478	5,906
Krakatau	3	6.10	3	8.43	3	18.05	3	18 55	Dutch	Nederland, Amsterdam	430.1	55.2	29.0	Caleta Buena	Alexandria	Nitrate of soda	8,500	7,019	4,839

[1] Tanker. [6] Submarine. [7] Copper, nitrate, cotton, general. [8] Value $67,517. [9] Wool, shell, copra, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Jacob Luckenbach	3	7.18	3	9.26	3	17.55	3	17.55	American	Luckenbach Line	414.5	53.7	19.2	Seattle	Mobile, Ala	General	3,000	7,315	5,270
Steel Seafarer	3	10.36	3	11.07	3	19.25	4	2.20	American	Isthmian Lines	424.2	56.2	27.0	Seattle	London	General	8,257	7,611	5,454
La Brea [1]	3	12.40	3	13.25	3	21.54	4	0.15	American	Union Oil Co. of California	435.0	56.2	28.6	Los Angeles	Philadelphia	Bulk gasoline	8,524	7,405	4,765
Saint Joseph	3	13.30	3	14.15	3	22.50	4	1.40	French	French Line	414.0	50.0	23.6	Talcahuano	Havre	General	5,473	5,979	4,170
Palm Branch	3	15.25	4	6.14	4	14.50	4	16.30	British	F. and W. Ritson	360.0	45.1	23.6	Corral	Liverpool	General	5,120	4,195	3,088
Swifteagle [1]	3	19.20	4	7.26	4	16.00	4	16.00	American	C. D. Mallory & Co	464.6	60.2	26.6	San Pedro	New York	Fuel oil	11,500	8,472	5,997
Oriana	4	2.20	4	7.56	4	17.25	5	1.30	British	Pacific Steam Navigation Co	465.7	56.2	25.9	Talcahuano	Liverpool	([11])	4,333	8,620	5,345
Miskianza [1]	3	17.55	4	8.25	4	17.40	4	17.40	American	Walker & Daly	425.0	57.2	26.4	Los Angeles	New York	Crude oil	9,654	7,205	5,125
Huallaga	4	10.15	4	13.47	4	21.40			Peruvian	Peruvian Line	360.0	44.7	22.6	Callao	Cristobal	General	2,760	4,514	2,386
Montrolite [1]	4	11.48	4	13.34	4	21.30	4	23.30	British	Imperial Oil Co	421.4	57.3	26.5	Lobitos, Peru	Halifax	Crude oil	9,300	7,378	4,752
Hercules [10]	3	16.30	4	14.36	5	15.45			American	Shipowners' Tugboat Co	141.0	29.6	15.8	San Francisco	Port Arthur	Ballast		1,367	1,367
Ansaldo San Giorgio II	4	13.10	5	6.26	5	16.30	6	9.00	Italian	Societa Nazionale de Navigazion	397.1	51.9	21.5	Valparaiso	Genoa	General	5,652	5,591	3,975
Clement Smith [1]	4	21.25	5	7.41	5	18.05	5	18.05	American	Oil Transport Co	431.0	59.2	27.6	Los Angeles	New York	Crude oil	12,000	8,097	5,532
Carolinian	4	23.45	5	8.06	5	19.10	5	20.05	American	Garland Steamship Co	359.8	50.2	23.5	Aberdeen	Philadelphia	Lumber	4,500	4,642	4,510
Cacique	5	2.50	5	8.16	5	18.40	5	19.15	American	Pacific Mail Steamship Co	394.2	52.3	19.6	San Francisco	New York	General	3,000	6,652	4,913
Atlantic Sun [1]	5	9.30	5	10.20	5	20.05	5	22.10	American	Sun Oil Co	429.3	59.2	27.0	Los Angeles	Philadelphia	Oil distillate	9,835	7,568	5,283
Jadden	4	14.40	5	11.40	5	20.15	5	20.15	American	Tampa-Interocean Steamship Co	410.5	54.2	25.9	Saigen, China	New Orleans	Rice, copra, gen	8,290	7,496	5,686
Amasis	5	12.30	5	12.40	5	21.40	6	1.40	German	Kosmos Line, Hamburg	438.7	55.3	23.0	Corral, Chile	Hamburg	General	6,652	7,286	5,174

[1] Tanker. [10] Dredge. [11] Copper, wheat, nitrate, etc. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
June 29	Edward L. Doheny	Pan-American Petroleum Co	Tampico.
July 29	Parismina	United Fruit Co	New Orleans via Habana.
June 29	Philadelphian	Leyland Line	Liverpool via wayports.
June 29	Calamares	United Fruit Co	Port Limon.
June 29	Teutonia	Hamburg-American Line	Puerto Barrios.
July 1	Pastores	United Fruit Co	New York via Habana.
July 1	Stuyvesant	Royal Netherlands W. I. Mail	Hamburg via wayports.
July 1	Atenas	United Fruit Co	New Orleans via Habana.

*DEPARTURES.

Date.	Vessel.	Line.	For—
June 28	San Blas	American Banana Corporation	Colon.
June 28	Impco [12]	Colon Import Co	Colon.
June 29	Calamares	United Fruit Co	New York via Habana.
June 29	Parismina	United Fruit Co	Bocas del Toro.
June 30	Edward L. Doheny	Pan-American Petroleum Co	Tampico.
June 30	Teutonia	Hamburg-American Line	Cartagena.
July 1	Philadelphian	Leyland Line	Port Limon.
July 1	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.

[12] Motor schooner. * Other than ships passing through the Canal.

(Continued on page 694, column 2.)

(Continued from page 683.)

tonnage, and the eastbound showing a slightly higher amount of tolls paid, and over 55 per cent more cargo carried. The figures are shown in the following table:

Direction.	Number of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo carried.
Atlantic to Pacific	12,589	51,423,161	$48,232,208.03	42,175,713
Pacific to Atlantic	12,443	49,397,236	49,570,610.38	65,735,278
Totals	25,032	100,820,397	97,802,818.40	107,910,991

A Difficult Stevedoring Job.

On June 17 the U. S. Navy collier *Jason* arrived at Cristobal for discharge with a cargo consisting of 149 heavy steel plates (2,502 tons) stowed in the bottom of holds 3 and 5, 7,379 tons of coal overlying these plates and 293 tons of general cargo. The steel plates weighed from 2¼ to 23 tons and averaged more than 16 tons each.

The general cargo was discharged between 7 a. m. and 11 a. m. on June 18, and the vessel was then shifted to the coaling plant, where the discharge of the coal was completed on the evening of June 19. At 6.40 a. m. on June 20, the vessel shifted again to dock 8 for discharge of the steel plates.

This part of the job was handled by the Panama Canal's floating crane *Hercules*, the pieces being swung from the holds to flat cars on the apron of the dock. While the *Hercules* was working No. 5 hatch, about 50 of the smaller plates were lifted by floating crane *No. 157*, lying on the offshore side of the collier from No. 3 hatch to a lighter, from which they were subsequently transferred by the same crane to flat cars on the dock.

The plates had been stowed one on top of the other without dunnage, which made it extremely difficult to get slings around them, but the difficulty was partly overcome by the use of 2-inch threaded eyebolts, manufactured by the Mechanical Division of The Panama Canal, which were screwed into holes that had been drilled in some of the heavier pieces for this purpose. The hazards of the job were such that it was not considered safe to work after dark by artificial light, and only one 8-hour shift was employed. Under these limitations the discharge of the plates was started at 7 a. m. on June 20 and completed at 3 p. m. on June 24, in 39 working hours, of which 7 were lost on account of rain.

The prompt discharge of this difficult cargo called for adequate mechanical equipment and skilled personnel. Both stood the test.

Second Transit of the Cableship "Dellwood" with Grain for London since the First of the Year.

The United States cableship *Dellwood* passed through the Canal en route from Seattle to London, laden with 1,212 tons of grain in her 5 steel cable tanks. After discharging the grain she will load with cable for the far northwest.

This is the second trip of this vessel to England for the same purpose since the first of the year, she having passed through the Canal outward-bound on February 11, 1924, returning May 18, 1924.

Commercial Traffic Through the Panama Canal in June, 1924, by Trade Routes.

ATLANTIC TO PACIFIC.

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo
United States intercoastal.							
United States	75	329,883	410,866	516,991	321,585	$312,249.40	193,659
From Europe to South America:							
British	6	23,104	29,934	37,629	23,430	28,391.66	16,109
Dutch	6	23,263	30,408	37,427	23,403	23,351.09	13,728
French	2	8,896	8,869	10,388	6,359	10,642.80	4,224
German	4	14,695	20,175	24,101	14,738	18,368.75	16,214
Italian	1	2,705	3,774	4,676	2,636	3,381.25	832
Jugo-Slavic	1	2,615	3,713	4,995	3,239	3,268.75	6,018
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	591
Totals	21	79,398	102,391	126,786	78,207	92,554.30	57,617
From United States to west coast of South America:							
British	2	9,093	9,429	13,329	8,900	7,550.25	2,818
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	2,111
Danish	2	5,283	6,945	8,650	5,344	6,603.75	11,894
Japanese	1	4,086	5,081	6,577	4,044	3,658.32	.....
Norwegian	2	5,996	9,530	9,641	6,047	7,210.70	3,606
United States	10	39,259	46,173	67,069	39,529	37,136.21	10,322
Totals	18	67,196	81,830	112,576	67,840	66,507.98	30,661
From Europe to Australasia.							
British	9	43,447	57,527	69,645	43,841	54,308.75	50,139
From United States to Far East:							
British	6	28,119	37,645	44,693	28,273	35,148.75	44,540
Japanese	2	6,708	7,619	9,671	6,581	8,385.00	10,683
United States	3	16,542	20,500	23,964	14,624	20,677.50	18,668
Totals	11	51,369	65,764	78,328	49,478	64,211.25	73,891
From Europe to west coast of United States:							
British	3	11,629	14,704	19,016	11,613	10,586.88	.....
French	1	6,077	7,083	9,802	5,532	7,596.25	7,344
German	2	9,720	11,568	13,067	7,839	12,001.85	11,845
Norwegian	1	4,523	5,627	7,093	4,479	5,653.75	9,678
United States	4	17,350	22,434	28,115	17,115	16,705.31	5,000
Totals	11	49,299	61,416	77,093	46,578	52,544.04	33,867
From United States to Australasia:							
British	8	30,345	40,908	48,993	30,375	37,931.25	46,568
United States	1	4,414	4,442	5,870	4,414	5,330.40	7,038
Totals	9	34,759	45,350	54,863	34,789	43,261.65	53,606
From Europe to west coast of Canada:							
British	5	15,940	22,693	26,783	16,311	19,925.00	13,862
Dutch	1	4,547	7,056	7,310	4,495	5,683.75	8,789
German	1	3,113	3,855	4,981	3,029	3,891.25	4,084
Totals	7	23,600	33,604	39,074	23,835	29,500.00	26,735
From Cristobal to west coast of South America:							
British	1	614	622	1,138	602	746.40	369
Colombian	1	67	77	153	68	55.44	.....
Peruvian	2	2,495	5,356	8,049	4,187	3,118.75	1,312
Totals	4	3,176	6,055	9,340	4,857	3,920.59	1,681
From east coast of Canada to west coast of United States:							
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
United States	3	17,575	23,557	28,120	17,516	16,961.04	.....
Totals	4	23,088	31,473	37,108	22,689	22,660.56	.....
From east coast of Canada to Australasia:							
British	8	11,049	14,254	17,837	11,065	13,811.25	10,840

ATLANTIC TO PACIFIC—Continued.

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Cristobal to west coast of Central America:							
British	2	1,286	1,441	2,298	1,304	$1,607.50	1,910
From east coast of South America to west coast of Canada:							
British	1	2,874	3,674	4,572	2,884	2,645.28	.....
United States	1	3,688	4,910	5,882	3,659	4,610.00	5,604
Totals	2	6,562	8,584	10,454	6,543	7,255.28	5,604
From east coast of Mexico to west coast of South America:							
British	2	8,463	9,583	14,453	8,283	10,578 75	18,109
From Cristobal to west coast of United States:							
United States	2	2,986	3,756	4,796	2,963	3,732.50	3,458
From West Indies to west coast of Canada:							
British	1	1,889	2,469	3,109	1,899	2,361.25	4,200
From West Indies to Far East:							
Greek	1	3,167	4,038	5,219	3,181	3,958.75	6,562
From West Indies to west coast of Central America:							
United States	1	323	327	828	563	242.25	.....
From West Indies to Balboa:							
British	1	3,375	3,917	5,578	3,365	4,218.75	7,769
From West Indies to west coast of South America:							
United States	1	325	223	715	330	267.60	.....
From east coast of South America to Far East:							
Japanese	1	3,677	4,118	5,853	3,623	4,596.25	523
From east coast of United States to Hawaii:							
United States	1	3,106	4,265	5,031	3,106	3,070.80	.....
South American intercoastal:							
Peruvian	1	1,515	2,959	4,617	2,427	1,893.75	496
Foreign vessels in ballast—U. S. intercoastal:							
British	1	5,004	5,879	8,461	5,960	4,232.88	.....
From east coast of United States to Balboa.							
German	1	5,620	7,873	9,226	5,338	7,025.00	3,740
From east coast of United States to west coast of Canada:							
British	1	1,196	1,571	2,280	1,315	1,495.00	3,102
From east coast of United States to Philippine Islands:							
United States	1	3,465	5,450	5,687	3,450	4,331.25	6,902
Canadian intercoastal:							
British	1	3,322	4,186	5,465	3,400	4,152.50	1,700
Totals, June, 1924	193	762,545	981,169	1,233,711	761,814	850,549.83	596,762
Totals, June, 1923	227	904,553	1,111,297	1,436,594	900,817	954,803.23	655,989
Totals, June, 1922	135	476,105	594,196	752,082	479,291	571,161.36	586,377

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	78	356,630	446,634	569,384	357,896	$445,027.15	705,865
From west coast of Canada to Europe:							
British	9	34,500	42,312	53,777	34,338	42,877.35	73,155
Danish	2	8,480	10,644	13,287	8,470	10,600.00	17,590
Dutch	2	10,626	13,405	17,097	10,706	13,282.50	20,466
French	3	12,659	14,647	15,814	9,630	15,638.00	23,099
Japanese	1	4,142	5,128	6,567	4,104	5,177.50	8,000
Norwegian	1	3,530	4,513	5,659	3,533	4,412.50	8,315
Swedish	1	2,286	4,013	3,725	2,232	2,857.50	5,622
United States	1	3,838	5,241	6,157	3,801	4,797.50	8,217
Totals	20	80,061	99,903	122,083	76,814	99,642.85	164,464

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From west coast of South America to United States:							
British	7	37,674	44,253	60,930	38,433	$46,830.90	65,090
Japanese	1	4,147	5,136	6,578	4,112	5,183.75	9,030
United States	12	40,586	47,428	69,708	40,593	50,491.05	115,200
Totals	20	82,407	96,817	137,216	83,139	102,505.70	189,230
From west coast of South America to Europe:							
British	5	22,799	28,650	37,491	22,774	28,498.75	28,911
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,021
Dutch	2	7,968	11,060	12,704	7,682	9,960.00	15,004
French	1	4,326	4,363	5,903	3,743	5,235.60	6,774
German	2	9,207	12,405	15,096	8,944	11,508.75	19,687
Spanish	2	6,045	7,322	9,845	5,947	7,556.25	299
Totals	13	53,857	68,505	88,352	53,066	67,149.35	75,696
From west coast of United States to Europe:							
British	5	17,142	20,498	27,606	17,042	21,427.50	37,252
Dutch	1	4,863	6,066	7,655	4,799	6,078.75	9,656
German	2	7,072	10,351	11,785	7,098	8,840.00	12,502
Japanese	1	4,358	4,400	5,861	4,259	5,280.00	7,595
Swedish	1	3,231	4,322	5,650	4,163	4,038.75	6,009
United States	2	10,280	12,971	16,737	10,256	12,850.00	22,300
Totals	12	46,946	56,608	75,297	47,617	58,515.00	95,314
From west coast of Canada to east coast of United States:							
British	4	15,673	20,051	25,298	15,660	19,591.25	32,063
Italian	1	3,556	4,090	5,794	3,590	4,445.00	6,002
Norwegian	1	2,866	4,990	4,811	2,859	3,582.50	8,617
United States	3	9,416	12,764	15,244	9,425	11,770.00	15,866
Totals	9	31,511	41,895	51,147	31,534	39,388.75	62,488
From Australasia to Europe:							
British	6	33,494	42,600	53,874	33,975	41,867.50	32,341
French	1	4,308	4,983	6,888	4,427	5,385.00	3,722
Totals	7	37,802	47,583	60,762	38,402	47,252.50	36,063
From west coast of South America to Cristobal:							
British	1	614	622	1,138	602	746.40	581
Colombian	1	334	335	864	614	402.00	310
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	3,085
Totals	4	3,969	6,867	11,363	6,316	4,924 65	3,976
From west coast of Central America to Cristobal:							
British	3	2,119	2,375	3,714	2,142	2,639.65	1,373
From west coast of United States to Cristobal:							
Panaman	1	218	241	371	254	173.52	
United States	2	2,821	3,712	4,617	2,815	3,526.25	1,803
Totals	3	3,039	3,953	4,988	3,069	3,699.77	1,803
From west coast of Central America to Europe:							
German	2	4,102	6,056	6,695	4,084	5,127.50	2,530
Canadian intercoastal:							
British	2	7,105	9,140	11,074	6,775	8,881.25	15,995
From Philippine Islands to east coast of United States:							
United States	2	7,590	9,653	12,133	7,539	9,487 50	16,132
From west coast of United States to east coast of Canada:							
United States	1	5,485	8,167	8,953	5,119	6,856 25	13,763
From Far East to West Indies:							
United States	1	3,297	3,810	5,287	3,285	4,121 25	6,660
From west coast of United States to east coast of South America:							
United States	1	3,522	4,914	5,652	3,522	4,402 50	2,237
From west coast of South America to east coast of Mexico:							
British	2	8,136	9,254	13,452	8,283	8,235 82	7,768

PACIFIC TO ATLANTIC—Continued.

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
From Australasia to east coast of United States:							
United States	1	4,335	4,321	5,716	4,271	$5,185.20	300
From west coast of United States to east coast of Mexico:							
British	1	7,497	8,664	11,877	7,353	9,371.25	15,456
From Far East to east coast of United States:							
Japanese	1	4,358	5,681	6,963	4,280	5,447.50	7,585
From Australasia to east coast of Canada:							
British	1	3,528	4,070	5,758	3,549	4,410.00	1,400
Totals, June, 1924	184	757,296	946,870	1,217,866	758,055	942,271.39	1,426,088
Totals, June, 1923	190	759,498	921,605	1,202,290	759,049	943,455.85	1,440,457
Totals, June, 1922	93	297,693	376,517	475,956	297,119	361,129.06	391,101

Tariff No. 7 Not to be Revised Now.

Panama Canal Tariff No. 7, containing a schedule of rates for supplies and services furnished to shipping and allied interests at the Panama Canal, will not be reprinted July 1, as heretofore, due to the small number of changes made therein during the past year.

Executive Order.

Establishing and Declaring Certain Property in the Republic of Panama to be a part of the Canal Zone for the construction, maintenance, operation, sanitation, and protection of the Panama Canal.

WHEREAS, by the treaty between the United States of America and the Republic of Panama to insure the construction, maintenance, operation, sanitation, and protection of a ship canal across the Isthmus of Panama to connect the Atlantic and Pacific Oceans, ratified under date of February 26, 1904, the Republic of Panama granted to the United States of America in perpetuity the use, occupation, and control of a zone of land and lands under water ten miles in width for the construction, maintenance, operation, sanitation, and protection of the said canal, and the use, occupation, and control in perpetuity of any other lands and waters outside of the said zone which may be necessary and convenient for the construction, maintenance, operation, sanitation, and protection of the said canal;

AND WHEREAS, the use, occupation, and control of the lands, hereinafter described, situated outside the limits of the said ten-mile zone and within the Republic of Panama are deemed necessary for the maintenance, operation, sanitation, and protection of the said canal:

NOW, THEREFORE, I, Calvin Coolidge, President of the United States of America, by virtue of the authority granted by the said treaty and of the authority vested in me by the laws of the United States of America made and provided do hereby set apart for the maintenance, operation, sanitation, and protection of the Panama Canal, subject to private rights, if any there be, the lands and lands under water described as follows:

"Beginning at the crossing of the Rio Chagres and the 100-foot contour, said crossing being approximately two miles above the Alhajuela dam site, thence along the left bank of the Rio Chagres following the 100-foot contour to its crossing of the Que Moja Polla; thence following the Que Moja Polla to its headwaters in the saddle between the 280-foot contours in the Alhajuela plateau; thence following through said saddle, in a northeasterly direction, to the 260-foot contour; thence following the 260-foot contour up and around the Rio Chagres and its tributaries on the left bank to its crossing of the Rio Chagres at latitude 9° 16′ and longitude 79° 31′; thence following along the 260-foot contour down the right bank of the Rio Chagres to a point opposite Dos Bocas; thence following the 260-foot contour up the left bank of the Rio Pequeni in a generally northerly direction to its crossing of the river at latitude 9° 22′ 45″ and longitude 79° 31′ 45″; thence following the 260-foot contour down the right bank of the Rio Pequeni and up the left bank of the Rio Boqueron to its crossing of the Boqueron at latitude 9° 23′ and longitude 79° 34′; thence down the right bank of the Boqueron, the Rio Pequeni, and the Rio Chagres always along the

260-foot contour to the northern boundary of the tract occupied by the Alhajuela Hydrographic Station; thence leaving the 260-foot contour, in an easterly direction, to and along the northern boundary of the aforesaid tract to a monument numbered 175 which is on the 100-foot contour on the right bank of the Rio Chagres; thence along the 100-foot contour upstream to the point of beginning, said point of beginning being on latitude 9° 13′ 09″ and longitude 79° 37′ 14″.

"For that part above the dam site the continuous 260-foot contour is the boundary line, except where it leaves the Alhajuela Lake basin. In such case the boundary line is the 260-foot contour up to the middle line of the saddle, and thence it follows along the middle line of the saddle to the 260-foot contour on the opposite side, and thence along the 260-foot contour of the basin until the next low saddle is encountered, where the same procedure is followed. In that part below the dam site or outside the basin area there is included, in addition to the land already described, the area within the isolated 260-foot contour on the right bank of the river and just to the north of the dam site, and also the tract now occupied by the Alhajuela Hydrographic Station, which is described as follows:

"Beginning at a monument numbered 175, which is on the 100-foot contour on the right bank of the Rio Chagres and 25 feet north of the Alhajuela water stage register, the northern boundary line has an azimuth of 85 degrees and extends a distance of 2,400 feet, more or less, to a monument numbered 37½, which is on the 100-foot contour on the left bank of the Quebrada Madronal; thence following the 100-foot contour down the left bank of the Quebrada Madronal and up the right bank of the Rio Chagres to monument 175, the point of beginning.

"The total area to be taken over is twenty-two (22) square miles, more or less, of which the basin area comprises twenty-one and two-tenths (21.2) square miles, and the part below the dam site comprises the balance of eight-tenths (0.8) of a square mile. In the above description references to latitude and longitude are approximate only.

"The entire area described above is shown on blueprint No. 6071–1, marked "The Panama Canal Map of the Alhajuela Basin," dated May 15, 1924."

It is Further Ordered, by virtue of the authority of said treaty, that said tract of land and land under water be, and the same is hereby, declared to be a part of the Canal Zone and subject in perpetuity to the use, occupation, and control of the United States of America under the terms of said treaty.

This Executive Order is made for the purpose of correcting the description of the Alhajuela Lake basin area and including therein portions of the property actually segregated but not included in the original description, and making the previous Executive Orders, the Proclamation of the Acting Governor of The Panama Canal, and the acts of the Canal Zone officials apply thereto. It is therefore ordered that the description of the Alhajuela Lake basin area as appearing in this Executive Order shall be regarded hereafter for all purposes as the true and correct description of said area. It is further ordered that the Proclamation of the Acting Governor of The Panama Canal, dated February 26, 1924, declaring said area segregated for the use and occupation of The Panama Canal; the possession of said area taken by The Panama Canal in behalf of the United States under date of February 1, 1924, and continued since that date; and the Executive Order of the President made on the 26th day of February, 1924, providing that said area shall be a part of the Balboa Division of the Canal Zone, under the jurisdiction of the United States District Court of the Canal Zone, shall apply to the entire area included in the description set forth herein and shall be deemed amended accordingly; and that all acts done within said territory by the authorities of The Panama Canal since the first day of February, 1924, be, and the same are hereby, expressly ratified and confirmed and made as valid and effectual as if this Order had been made prior to February 26, 1924.

It is Further Declared that this Order shall take effect and be in force from and after the date hereof.

CALVIN COOLIDGE

The White House,
June 5, 1924.

[No. 4019.]

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the week ended July 7:

Steamship *Panama*, repair ash bucket handles, pipe rail gate, two air ports, ventilator room No. 17, steam press in pantry and plumbing; renew guard pipe and repair

wires of engine room telegraph; dress fire tools and chisels; repair awning stanchion and leak under No. 1 winch; build up side strongbacks and door frame of No. 2 cargo port, starboard side, etc.; tug *Porto Bello*, manufacture new piston rings for follower piston, L. P. valves, new piston rings for oil pump and new piston rod for dynamo engine; repair valves on steam line to oil pumps, oil heaters, circulator, steam line to fresh water pump; towing engine exhaust, capstan engine, fresh water pump, and throttle valve; remodel stem head; furnish two boiler scalers; renew deck planking where necessary and caulk same, etc.; U. S. A. M. P. *Graham*, recaulk main deck and renew planking where necessary; cover top deck of after house with canvas; repair main engine, electric generator set, after capstan engine, salt water service to bearings, float filter box, steel locker, electric wiring, gauge board, etc.; steamship *Salvador*, repair bulwarks, hand pump, refrigerating brine pump, steering engine, winch, windlass, boat davits, rails on main deck, scupper pipe, and ring bolts and cleats for derrick guys; manufacture one tarpaulin for No. 2 hatch; caulk fore deck, scale and paint ship's side plating, between deep and light load line, etc.

Minor repairs—Steamships *Huallaga*, *W. S. Rhem*, *Oriana*, and *Tsad*, dredge *Hercules*, schooner *Arabia*, and launch *Cabiria*.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending June 28, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Salvador	Pacific Steam Navigation Co.		June 15		987
Ulua	United Fruit Co.	June 15	June 15	4	347
Heredia	United Fruit Co.	June 15	June 15	283	85
Lake Flattery	Panama Railroad Steamship Line.	June 15	June 16	466	110
Lobos	Pacific Steam Navigation Co.	June 16	June 17	7¾	475
West Camargo	Swayne & Hoyt, Inc.	June 16	June 17	141	(2)
Teutonia	Hamburg-American Line.	June 17	June 17	454	11
Tolca	United Fruit Co.	June 17	June 18	348	43
Turrialba	United Fruit Co.	June 17	June 19	1,018	174
Urubamba	Peruvian Line.	June 17		1,800	
Cristobal	Panama Railroad Steamship Line.		June 19		2,469
Pellerin de Latouche	French Line.	June 17	June 21	256	500
Heredia	United Fruit Co.	June 18	June 18	6	4
Santa Marta	United Fruit Co.	June 18	June 19	140	215
Peter Kerr	United American Lines.	June 18	June 19	400	(2)
Venezuela	Royal Netherlands W. I. Mail.	June 18	June 18	217	(2)
Scottish Borderer	Anglo-Saxon Petroleum Co.	June 18		9,123	
Bogota	Pacific Steam Navigation Co.	June 18	June 19	397	234
Aconcagua	Chilean Line	June 19	June 20	32	(2)
Bologna	Italian Line	June 19	June 20	188	(2)
Carrillo	United Fruit Co.	June 19	June 19	(1)	147
Hudson	French Line.	June 20	June 21	193	(2)
Naimes	Roland Line.	June 20	June 20	118	(2)
Bennekom	Royal Netherlands W. I. Mail.	June 20	June 20	280	82
Montevideo	Spanish Line.	June 21		95	
Venezuela	Royal Netherlands W. I. Mail.	June 21	June 21	12	463
Oranian	Leyland Line.	June 21		928	
Oroya	Pacific Steam Navigation Co.	June 21	June 21	(1)	2½
Newport	Pacific Mail Steamship Co.		June 21		2,086
Montevideo	Spanish Line.		June 22		488
Tolca	United Fruit Co.	June 22	June 22	22	245
Cartago	United Fruit Co.	June 22	June 22	287	79
General W. C. Gorgas	Panama Railroad Steamship Line.	June 22		1,819	
Camden	United Fruit Co.	June 23	June 24	5,213	(2)
Santa Luisa	Grace Line.	June 23	June 23	(1)	305
Oranian	Leyland Line.		June 23		56
Santa Rosa	Pacific Mail Steamship Co.	June 24	June 25	440	608
Urubamba	Peruvian Line.		June 24		774
Calamares	United Fruit Co.	June 24	June 25	141	195
Abangarez	United Fruit Co.	June 24	June 26	993	172
Jacques Cartier	French Line.	June 24	June 25	38	42
Lochgoil	Pacific Steam Navigation Co.	June 24	June 25	298	611
Jamaica	Pacific Steam Navigation Co.	June 24		581	
Cauca	Pacific Steam Navigation Co.	June 24		378	
Arana	Pacific Steam Navigation Co.	June 24	June 26	108	285
Santa Marta	United Fruit Co.	June 25	June 26	(1)	280
Metapan	United Fruit Co.	June 25	June 26	258	150
Leon XIII	Spanish Line.	June 26	June 27	811	79
Alkmaar	Royal Netherlands W. I. Mail.	June 26	June 27	314	27
Corinto	Pacific Mail Steamship Co.	June 26		1,103	
Ecuador	Pacific Mail Steamship Co	June 27	June 28	331	(2)
Coronado	Elders & Fyffes, Ltd.	June 28	June 28	2½	(2)
Acajutla	Pacific Steam Navigation Co.		June 28		932

[1] No cargo discharged.

[2] No cargo laded.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.70 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.00 and $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Cable Addresses of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Postal Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Hours of Departure of Passenger Trains.

Following are the hours of departure of the passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: 9.10 a. m., 12.15 p. m., 4 p. m.

From Panama: 7 a. m., 12.15 p. m., 6.10 p. m.

The trains leaving at 12.15 p. m. do not run on Sundays and holidays; the others are daily.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 686.

PORT OF CRISTOBAL—Continued.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 2	Puerto Rico	French Line	St. Nazaire via wayports.	July 2	Stuyvesant	Royal Netherlands W. I. Mail	Port Limon.
July 2	Parismina	United Fruit Co	Bocas del Toro.	July 2	Parismina	United Fruit Co	New Orleans via Habana.
July 2	Sixaola	United Fruit Co	New York via Kingston.	July 2	Pastores	United Fruit Co	Port Limon.
July 3	Panama	Panama Railroad Steamship Line	New York via Haiti.	July 3	Puerto Rico	French Line	St. Nazaire and wayports.
July 3	Metapan	United Fruit Co	Colombian ports.	July 3	Atenas	United Fruit Co	New Orleans via wayports.
July 5	Stuyvesant	Royal Netherlands W. I. Mail	Port Limon.	July 3	Sixaola	United Fruit Co	Colombian ports.
				July 3	Metapan	United Fruit Co	New York via Kingston.
				July 5	Stuyvesant	Royal Netherlands W. I. Mail	Amsterdam via wayports.

PORT OF BALBOA.

July 1	Atrato	Colombian Transport Co	Buenaventura.	July 4	Atrato	Colombian Transport Co	Buenaventura.
July 2	Almirante	M. Valencia	San Lorenzo.	July 3	Almirante	M. Valencia	Panama.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., July 16, 1924. No. 49.

Tanker Traffic Through Canal in June, 1924.

During the month of June, 1924, 105 tankships transited the Canal carrying an aggregate of 639,714 tons of cargo. This is the smallest number of tankships to transit the Canal in any one month since February, 1923, when 74 tankships passed through with approximately 400,000 tons of cargo.

June and August, 1923, were the peak months in number of tanker transits with 173 for each month, and September, 1923, was the peak month for tons of cargo carried in tankships, with 1,023,320 tons. Comparing June, 1924, with the peak months, transits show a decrease of 68 vessels, or nearly 40 per cent; tons of cargo carried shows a decrease of 383,606 tons, or approximately 37.5 per cent.

Tanker transits were about 28 per cent of the total commercial transits during June, 1924; about 33⅓ per cent of the total tonnage, Panama Canal measurement; paid about 28 per cent of the total tolls; and carried about 31 per cent of the total cargo in transit.

The following tabulation shows the number, aggregate net tonnage, Panama Canal measurement, tolls and cargo of tankships through the Canal during June, 1924, segregated by nationality of vessel and direction of transit, with the totals for the two preceding months and for June, 1923:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific				
British	7	35,957	$31,123.50	25,869
Danzig	1	7,916	5,699.52	.....
German	1	7,873	7,025.00	3,740
United States	44	261,189	189,909.20	1,105
Totals, June, 1924	53	312,935	233,757.22	30,714
Totals, May, 1924	51	311,217	248,649.09	28,069
Totals, April, 1924	66	392,710	292,044.65	31,247
Totals, June, 1923	88	513,690	380,224.05	47,859
Pacific to Atlantic.				
British	9	55,681	59,066.72	91,736
Danzig	1	8,167	6,856.25	13,763
German	1	7,873	7,025.00	12,017
United States	41	260,024	264,964.65	491,484
Totals, June, 1924	52	331,745	337,912.62	609,000
Totals, May, 1924	70	417,358	433,705.31	782,341
Totals, April, 1924	52	315,835	324,023.03	568,339
Totals, June, 1923	85	491,479	521,017.86	933,702

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
June, 1924	42	251,453	$181,112.61	.....
May, 1924	42	266,124	192,117.47	.....
April, 1924	56	338,481	247,212.52	8,529
From Los Angeles.				
June, 1924	39	257,142	259,613.50	483,592
May, 1924	57	347,224	357,691.85	657,144
April, 1924	42	254,414	261,941.35	475,272

Motor Ship on Maiden Voyage Around the World.

The motorship *Silverelm*, British registry, owned and operated by the Silver Cedar Shipping Co., transited the Canal from the Atlantic to the Pacific on July 2, 1924. She is loaded with 7,018 tons of general cargo from New York for Far Eastern ports, and will return to New York through the Suez Canal with such cargo as may be offered in the Far East. On her outward voyage she will take on enough fuel oil at Los Angeles to see her back to New York.

The *Silverelm* is a vessel of 8,000 tons deadweight, 4,681 tons Panama Canal measurement, and is equipped with a new type of semi-diesel, opposed piston engine. This engine is of 3 cylinders, whereas other engines of this character have been 4-cylinder.

According to a statement made by the master of the *Silverelm*, the engine is proving very satisfactory, consuming but 7 tons of fuel in 24 hours, driving the vessel at 11 knots per hour.

Charges for Panama Canal Floating Equipment Engaged for Salvage Operations.

THE PANAMA CANAL, MARINE DIVISION,
BALBOA HEIGHTS, C. Z., July 8, 1924.

MEMORANDUM FOR STEAMSHIP AGENTS:

Your attention is invited to the below-quoted interpretation of The Panama Canal Tariff No. 7, covering rates applicable to Panama Canal tugs and the salvage steamer U. S. S. *Favorite*, when rented for salvage work. This interpretation has received the approval of the Governor, The Panama Canal:

"In applying Tariff No. 7 of July 1, 1923, when tugs are called to the assistance of a grounded ship, paragraph 4 of item 5, page 10, shall apply while the tug is steaming to and from the ship; salvage rates shall apply when the tug is standing by the vessel or when she is assisting the vessel by running lines, carrying out anchors, transferring passengers or cargo, etc. The total time charged at daily salvage rate shall be subtracted from the total elapsed time from leaving port to return thereto in order to obtain the time to be charged for at the hourly rate.

"When the U. S. S. *Favorite* is sent to assist a grounded vessel at a daily rate, the salvage rate applies from the time she leaves port until she reaches port on her return."

A. W. HINDS,
Marine Superintendent.

Supplement No. 10.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., July 10, 1924.

ITEM 22—FUEL AND DIESEL OILS.
(Effective July 15, 1924.)

1. Fuel oil, per barrel of 42 gallons, delivered to vessels at either Cristobal or Balboa $2.00

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Two Weeks Ending July 12, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Parismina	United Fruit Co	June 29	June 29	379	214
Calamares	United Fruit Co	June 29	June 29	17	282
E. L. Doheny	Pan-American Petroleum Co	June 29	June 30	9,000	(2)
Teutonia	Hamburg-American Line	June 29	June 30	(1)	126
Philadelphian	Leyland Line	June 29	July 1	670	137
Essequibo	Pacific Steam Navigation Co	June 30	July 1	195	356
General W. C. Gorgas	Panama Railroad Steamship Line		July 1		2,987
Pastores	United Fruit Co	July 1	July 2	209	251
Saint Louis	French Line	July 1	July 2	30	(2)
Stuyvesant	Royal Netherlands W. I. Mail	July 1	July 2	242	(2)
Almargo	Pacific Steam Navigation Co	July 1	July 2	222	200
Toba Maru	Nippon Yusen Kaisha	July 1	July 2	100	(2)
Puerto Rico	French Line	July 2	July 3	49	497
Tsad	Hamburg-American Line	July 2	July 3	246	(2)
Sixaola	United Fruit Co	July 2	July 3	87	293
Parismina	United Fruit Co	July 2	July 2	5	8
Santa Elisa	Grace Line	July 2	July 3	(1)	2
Metapan	United Fruit Co	July 3	July 3	(1)	204
Panama	Panama Railroad Steamship Line	July 3		2,902	
Jamaica	Pacific Steam Navigation Co		July 3		935
Edenton	Tampa Interocean Steamship Line	July 3	July 4	228	(2)
Santa Tecla	New Orleans & S. America Line	July 3	July 4	32	51
H. H. Rogers	Standard Oil Co. of N. J	July 3	July 5	10,102	(2)
La Paz	Pacific Steam Navigation Co	July 4	July 4	12	259
Ansaldo San Giorgio III	Transatlantica Italiana S. S. Line	July 4	July 5	162	(2)
Helder	Royal Netherlands W. I. Mail	July 4	July 4	95	(2)
Huallaga	Peruvian Line	July 4		2,760	
Ansaldo San Giorgio II	Transatlantica Italiana S. S. Line	July 5	July 5	16	40
Stuyvesant	Royal Netherlands W. I. Mail	July 5	July 5	6	176
Corinto	Pacific Mail Steamship Co		July 5		2,003
Pastores	United Fruit Co	July 6	July 6	18	320
Heredia	United Fruit Co	July 6	July 6	437	230
Salvador	Pacific Steam Navigation Co	July 6		734	
Cardita	Anglo-Saxon Petroleum Co	July 7	July 9	7,446	(2)
Panama	Panama Railroad Steamship Line		July 9		2,908
Turrialba	United Fruit Co	July 8	July 9	557	(2)
Ulua	United Fruit Co	July 8	July 9	256	47
Junin	Pacific Steam Navigation Co	July 8	July 10		142
Rhodopis	Hamburg-American Line	July 8	July 9	1	(2)
Carrillo	United Fruit Co	July 8	July 10	143	254
Heredia	United Fruit Co	July 9	July 9	6	8
Alvarado	Pacific Steam Navigation Co	July 9	July 10	369	62
Orita	Pacific Steam Navigation Co	July 9	July 10	93	3
Lochkatrine	Pacific Steam Navigation Co	July 9	July 10	(1)	213
Mississippi	French Line	July 10	July 12	14	146
Huallaga	Peruvian Line		July 10		797
Sixaola	United Fruit Co	July 10	July 10	½	315
Lake Flattery	Panama Railroad Steamship Line	July 10	July 11	107	14
Clare	A. H. Bull Steamship Co	July 10	July 11	434	6
Santa Clara	Pacific Mail Steamship Line	July 11	July 12	659	530
Cristobal	Panama Railroad Steamship Line	July 11		2,617	
Aconcagua	Chilean Line	July 11	July 11	(1)	283
Bayano	Elders & Fyffes, Ltd	July 12	July 12	1	(2)
Mantaro	Peruvian Line	July 12		1,830	

[1] No cargo discharged. [2] No cargo laded.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships at the rate of from 100 to 500 tons an hour, practically as fast as the nature of the vessel will allow. Oil can be delivered as fast as the ships can take it, from 30 tanks aggregating approximately 1,500,000 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A salvage service operated by the Canal is available for prompt assistance to vessels within a radius of a thousand miles of the Canal, or farther if required. Seagoing tugs or a wrecking tug with requisite equipment are dispatched on short notice.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in nearly 10 years of operation.

Origin and Destination of Cargo Passing Through the Panama Canal from the Atlantic to the Pacific, June, 1924.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Hawaii.	Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	Balboa, C. Z.[2]	West coast of Mexico.	West coast of North America.[1]	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	New Zealand.	Australia.	Australasia.[1]	Total, Australasia.			
North America:																									
United States—																									
N. Atlantic ports.	8,342	42	245	4,807	10,080	23,516	172,960	85	3,583	.....	....	....	176,628	10,506	29,362	13,627	15,546	69,041	4,854	47,450	4,954	57,258	1,392	327,835	54.9
S. Atlantic ports.	6,125	.....	.....	.....	.....	6,125	100	.....	.....	.....	....	....	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,225	1.0
Gulf ports	256	25	.....	89	650	1,020	19,558	.....	.....	3,740	....	....	23,298	6,638	5,027	.....	.....	11,665	.....	6,823	.....	6,823	.....	42,806	7.2
Totals, U. S.	14,723	67	245	4,896	10,730	30,661	92,618	85	3,583	3,740	....	....	200,026	17,141	34,389	13,627	15,546	80,703	4,854	54,273	4,954	64,081	1,392	376,866	63.1
E. coast of Mexico.	18,100	....	.....	.....	.....	18,100	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,100	3.0
Cristobal, C. Z.[2]	93	....	10	.....	2,321	2,424	1,286	.....	5,058	.....	....	....	6,344	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,768	1.5
E. coast of Canada	.....	....	.....	.....	.....	.....	.....	1,700	.....	.....	....	....	1,700	.....	.....	.....	.....	.....	493	3,068	6,629	10,200	.....	11,900	2.0
West Indies	.....	....	.....	.....	.....	.....	.....	4,200	.....	7,769	....	....	11,969	.....	6,562	.....	.....	6,562	.....	.....	.....	.....	.....	18,531	3.1
Totals, N. Am.	32,916	67	255	4,896	13,051	51,185	193,904	5,985	8,641	11,509	....	....	220,039	17,144	40,951	13,627	13,119	87,268	5,357	57,341	11,583	74,281	1,392	434,165	72.7
Europe:																									
British Isles	8,751	....	.....	247	9,878	18,876	11,334	7,736	.....	.....	....	....	19,070	.....	.....	.....	.....	.....	34,754	.....	5,550	40,304	.....	78,250	13.1
France	18	....	504	10	1,036	1,568	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,568	0.3
Germany	8,221	....	1,180	440	10,136	19,977	2,902	33	.....	.....	....	....	2,935	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22,912	3.8
Holland	950	....	.....	25	1,009	1,984	5,549	1,459	.....	.....	....	....	6,999	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,983	1.5
Belgium	1,100	....	.....	1,688	6,217	9,005	8,335	1,043	.....	.....	....	....	9,378	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,383	3.1
Norway & Sweden	.....	....	.....	.....	.....	.....	9,678	.....	.....	.....	....	....	9,678	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,678	1.6
Italy	278	....	.....	3	275	556	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	556	0.1
Spain	.....	....	.....	.....	493	493	.....	.....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	493	0.1
Europe[1]	.....	....	.....	.....	4,043	4,043	10,078	568	.....	.....	....	775	11,421	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15,464	2.6
Totals, Europe	19,318	....	1,684	2,413	33,087	56,502	47,876	10,830	.....	.....	....	775	59,481	.....	.....	.....	.....	.....	34,754	.....	5,550	40,304	.....	156,287	26.2
E. coast S. America	8	....	.....	.....	496	504	5,595	109	.....	.....	....	....	5,704	102	.....	.....	.....	102	.....	.....	.....	.....	.....	6,310	1.1
Grand totals	52,242	67	1,939	7,309	46,634	108,191	247,375	16,924	8,641	11,509	....	775	285,224	17,246	40,951	13,627	15,546	87,370	40,111	57,341	17,133	114,585	1,392	596,762	100.0
Per cent of total cargo:																									
June, 1924	8.8	....	0.3	1.2	7.8	18.1	41.2	2.9	1.5	2.0	....	0.1	47.7	2.9	6.9	2.3	2.6	14.7	6.7	9.6	2.9	19.2	0.3	.....	100.0
June, 1923	7.8	0.3	0.5	2.5	1.9	13.0	49.8	1.8	0.6	1.3	0.5	....	54.0	7.2	4.5	0.5	6.6	18.8	6.2	5.2	1.8	13.2	1.0	.....	.....
June, 1922	7.8	0.4	0.2	3.6	8.0	20.0	34.5	2.7	0.3	2.7	0.6	....	41.9	10.4	6.6	.....	7.9	24.9	3.9	4.8	3.1	11.8	1.4	.....	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal from the Pacific to the Atlantic June, 1924.

(Figures represent tons of 2,240 pounds.)

From—	North America. United States. North Atlantic ports.	United States. South Atlantic ports.	United States. Gulf ports.	United States. Total, United States.	East coast of Canada.	West Indies.	Cristobal, C. Z.[2]	East coast of Mexico.	East coast of North America.[1]	Total, North America.	Europe. British Isles.	Belgium.	France.	Germany.	Holland.	Spain and Portugal.	Italy.	Norway and Sweden.	Denmark.	Europe.[1]	Total, Europe.	East coast of South America.	Grand totals.	Per cent of total cargo.
South America:																								
Chile	131,527	8,000	3,531	143,058	.....	270	91	.....	.....	143,419	30,257	23	7,489	7,592	303	....	.....	.....	.....	5,990	51,654	.....	195,073	13.7
Colombia	1,289	.....	.....	1,289	.....	.....	1,529	.....	.....	2,818	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,818	0 2
Ecuador	644	.....	.....	644	.....	.....	142	.....	.....	786	119	.....	3	68	.....	3	.....	.....	.....	1,476	1,669	37	2,492	0 2
Peru	20,647	27,236	.....	47,883	.....	.....	3,284	7,758	.....	58,925	2,460	.....	65	7,628	.....	.....	.....	4,584	.....	702	15,439	.....	74,364	5 2
W. coast S. America[1]	345	.....	.....	345	.....	.....	394	.....	.....	739	803	.....	.....	.....	.....	.....	.....	.....	.....	93	896	279	1,914	0 1
Totals, S. America.	154,452	35,236	3,531	193,219	.....	270	5,440	7,758	.....	206,687	33,639	23	7,557	15,288	303	3	.....	4,584	.....	8,261	69,658	316	276,661	19.4
North America:																								
W. coast of U. S.	702,117	5,006	11,549	718,672	13,763	.....	28	15,456	.....	747,919	102,905	.....	3,280	1,944	1,010	....	.....	372	2,150	20,351	132,012	2,237	882,168	61.8
W. coast of Canada	45,809	2,340	1,447	49,596	15,995	.....	.....	.....	.....	65,591	54,523	3,039	13,811	.....	3,920	....	9,964	5,273	100	26,900	117,530	.....	183,121	12.8
W. coast C. America	85	.....	.....	85	.....	.....	3,168	.....	.....	3,253	.....	.....	.....	2,510	.....	.....	.....	220	.....	.....	2,730	.....	5,983	0-4
W. coast N. America[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,769	.....	.....	.....	.....	.....	.....	3,880	.....	2,366	10,015	.....	10,015	0.8
Totals, N. America	748,011	7,346	12,996	768,353	29,758	.....	3,196	15,456	.....	816,763	161,197	3,039	17,091	4,454	4,930	....	9,964	9,745	2,250	49,617	262,287	2,237	1,081,287	75.8
Asia:																								
Philippines	18,864	.....	.....	18,864	.....	.....	.....	.....	.....	18,864	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,864	1.3
Japan	20	.....	.....	20	.....	.....	.....	.....	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	....
China	130	.....	.....	130	.....	.....	297	.....	.....	427	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	427	....
Far East[1]	4,406	.....	.....	4,406	.....	6,660	.....	.....	.....	11,066	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,066	0.8
Totals, Asia	23,420	.....	.....	23,420	.....	6,660	297	.....	.....	30,377	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30,377	2.1
Australasia:																								
Australia	300	.....	.....	300	.....	.....	.....	.....	.....	300	3,241	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,241	.....	3,541	0.2
New Zealand	1,298	.....	.....	1,298	.....	.....	.....	.....	.....	1,298	18,527	.....	.....	.....	.....	.....	.....	.....	.....	1,755	20,282	.....	21,580	1.6
Australasia[1]	.....	.....	.....	.....	.....	.....	.....	.....	1,400	1,400	4,422	.....	3,722	.....	.....	.....	.....	.....	.....	3,098	11,242	.....	12,642	0.9
Totals, Australasia.	1,598	.....	.....	1,598	.....	.....	.....	.....	1,400	2,998	26,190	.....	3,722	.....	.....	.....	.....	.....	.....	4,853	34,765	.....	37,763	2.7
Grand totals	927,481	42,582	16,527	986,590	29,758	6,930	8,933	23,214	1,400	1,056,825	221,026	3,062	28,370	19,742	5,233	3	9,964	14,329	2,250	62,731	366,710	2,553	1,426,088	100 0
Per cent of total cargo:																								
June, 1924	65.0	3.0	1.2	69.2	2.1	0.5	0.6	1.6	0.1	74.1	15 5	0.2	1.9	1.4	0.4	....	0.7	1.0	0.2	4.4	25.7	0.2	.....	100.0
June, 1923	64.0	1.7	7.3	73.0	1.7	1.5	2.0	8.4	.....	86.6	8.8	....	0.7	0.5	.....	0.7	.....	0.4	.....	2.0	13.1	0.3	.....	.....
June, 1922	52.6	4.2	1 0	57.8	.....	0.8	3.7	.....	.....	62.3	23.1	3.1	2.9	3.0	0.5	.....	.....	.....	.....	4.6	37.5	0.2	.....	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 12, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Agwismith [1]	5	14.30	6	6.18	6	13.40	6	14.40	American	International Shipping Co	499.9	68.1	19.0	New York	San Pedro	Ballast		10,853	7,736
J. C. Donnell [1]	6	0.25	6	7.10	6	15.14	6	16.15	American	Atlantic Refining Co	500.0	68.2	21.6	Newport News	San Pedro	Ballast		10,435	7,304
Steelworker	6	6.35	6	8.08	6	17.46	6	21.48	American	Norton Lilly & Co	425.0	56.0	25.0	Baltimore	Yokohama	General	8,193	7,611	5,497
Lisbon Maru	6	7.34	6	9.38	6	18.25	6	19.30	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.5	Savannah	Nagasaki	General	8,608	8,015	5,849
Eurana [1]	6	10.35	6	10.50	6	19.06	6	20.15	American	International Mercantile Marine	435.8½	56.3	20.0	New York	San Francisco	Ballast		6,645	4,976
Westmoreland	6	6.28	6	13.20	6	21.10	6	22.20	British	Federal Steam Navigation Co	473.0	60.0	30.7	Liverpool	Auckland	General	9,452	10,385	7,505
Japan Arrow [1]	6	13.35	7	6.15	7	13.25	7	14.18	American	Standard Transportation Co	468.3	62.7	19.6	New York	Los Angeles	Ballast		10,084	7,426
W. S. Rheem [1]	6	12.30	7	7.18	7	14.40	7	15.53	American	Standard Oil Co	500.0	68.2	22.0	Baltimore	Los Angeles	Ballast		11,224	7,860
Dunstaffnage	6	15.30	7	7.40	7	15.53	7	17.05	British	Glen & Co	384.9	52.0	22.9	New York	San Antonio	Coke, general	5,072	5,173	3,651
Venetia [2]	7	4.15	7	8.25	7	15.20	7	20.05	American	J. D. Spreckles	196.0	27.0	14.0	New York	San Diego	Ballast		569	209
Clauscus	7	1.00	7	9.32	7	18.38	7	19.49	American	Planet Line	409.8	54.2	22.0	New York	Vancouver	([7])	6,526	6,581	4,795
Chuky [1]	7	20.20	8	6.10	8	13.30	8	15.15	British	Sheridan Steamship Co	440.8	56.0	25.6	Tampico	Tocopilla	Crude oil	8,802	7,691	4,723
Kermit	8	1.10	8	6.32	8	14.41	8	18.25	American	United-American Line	471.0	59.0	19.0	United King	Los Angeles	General	4,083	9,032	6,655
San Teodoro [1]	8	6.23	8	7.27	8	15.25	8	16.26	British	Eagle Oil Transport Co	412.0	53.0	26.0	New Orleans	Valparaiso	([8])	7,075	6,006	4,200
Alda	8	8.08	8	8.20	8	15.36	8	18.25	German	Roland Line	359.4	51.0	21.0	Hamburg	Valparaiso	General	3,560	4,791	3,392
Agwistone [1]	8	8.20	8	8.50	8	16.25	8	17.27	American	International Shipping Co	499.9	68.1	20.0	New York	San Pedro	Ballast		10,853	7,804
Borgland [3]	8	8.45	8	9.05	8	16.49	10	14.15	Norwegian	Norway-Pacific Line	362.0	52.0	26.0	Christiania	Honolulu	Cement	7,150	5,274	3,886
Calgarolite [1]	8	9.05	8	9.25	8	17.15	8	18.42	British	Imperial Oil Co	463.3	60.2	20.0	Baltimore	Talara	Ballast		8,491	6,060
Eastern Sea	8	11.12	8	11.30	8	19.20	8	21.20	American	U. S. & A. Line (S. B.)	385.0	51.0	24.0	New York	Adelaide	General	4,646	5,934	4,415
Monticello	8	12.30	8	12.40	8	19.59	8	21.14	American	United-American Line	468.0	58.0	19.0	Savannah	Seattle	General	3,713	8,460	6,084
Cleveland [4]	7	17.35	8	13.10	9	11.30	.....	.....	American	U. S. Navy	292.0	44.0	17.6	Key West	Balboa	Ballast		.....	.....
J. A. Moffett, Jr. [1]	8	13.32	8	13.40	8	21.10	9	23.41	American	Standard Oil Co	499.2	68.1	25.6	Tampico	Corinto	Crude oil	10,000	11,037	7,995
R-26 [5]	.....	.....	8	12.45	8	20.00	.....	.....	American	U. S. Navy	175.0	16.7¾	.....	Cristobal	Balboa	Ballast		.....	.....
Cardita [1]	7	6.45	9	5.40	9	13.35	9	14.30	British	Anglo-Saxon Petroleum Co	400.0	52.0	21.6	Curacao	San Pedro	Ballast		6,023	4,111
Tulsa [6]	8	19.20	9	6.05	9	14.19	.....	.....	American	U. S. Navy	241.0	41.2	12.7	Guantanamo	Balboa	Ballast		.....	.....
Myriam [1]	8	10.55	9	6.25	9	15.40	9	16.45	French	Anglo-Saxon Petroleum Co	420.0	52.0	21.3	Shellhaven	San Pedro	Ballast		7,178	5,072
Steelore	9	5.20	9	7.30	9	16.42	9	18.00	American	Ore Steamship Co	550.7	72.2	22.0	New York	Cruz Grande	Ballast		15,551	4,297
Shreveport [1]	9	4.40	9	7.25	9	16.56	9	18.00	American	Cities Service Corporation	435.0	56.0	20.0	Philadelphia	San Pedro	Ballast		7,411	5,109
Dorothy Luckenbach	9	5.05	9	8.20	9	17.58	9	18.56	American	Luckenbach Line	448.9	60.2	25.3	New York	San Francisco	General	7,000	9,294	6,861
City of Yokohama	9	9.33	9	9.40	9	19.12	9	20.20	British	Ellerman & Bucknall Line	465.0	58.0	24.0	New York	Yokohama	General	7,866	9,581	7,308
Rhodopis	8	23.25	9	11.05	9	19.16	9	20.47	German	Kosmos Line	435.9	53.2	22.0	Hamburg	Corral	General	4,021	7,525	5,154
Iossifoglu [3]	9	20.15	10	6.25	10	13.57	10	14.47	British	A. Frangopulo	400.8	53.0	25.3	Ymudam	San Francisco	Coke, pig iron	8,048	6,903	5,185
Sierra Morena [1]	10	3.00	10	7.52	10	15.27	10	16.45	Danish	A/S D/S S. S. Co	331.9	48.9	25.0	Antwerp	Honolulu	Cement	5,906	4,510	3,339
Alaska Maru	10	9.38	10	10.00	10	17.20	11	1.00	Japanese	Osaka Shosen Kaisha	420.0	56.0	28.6	New York	Shanghai	General, petr.	8,144	7,775	5,641
Orita	9	19.35	10	10.20	10	17.02	11	0.07	British	Pacific Steam Navigation Co	485.4	58.2	23.3	Liverpool	Valparaiso	General	2,891	9,936	6,561

[1] Tanker. [2] Yacht. [3] Motor ship. [4] Cruiser. [5] Submarine. [6] Gunboat. [7] Steel products and general. [8] Gasoline and kerosene.

Cubore [9]	10	10.43	10	10.55	10	17.44	10	19.05	American	Ore Steamship Co	450.0	57.2	19.0	Baltimore	Cruz Grande	Ballast		7,956	4,866
Huallaga	4	22.40	10	11.10	10	18.22	10	19.34	Peruvian	Peruvian Line	360.0	44.7	21.6	Cristobal	Callao	General	815	4,514	2,386
Finland	10	11.35	10	12.02	10	18.56	11	2.30	American	Panama-Pacific Line	580.0	60.5	23.0	New York	Los Angeles	General	1,609	13,559	9,016
Junin	8	8.15	10	12.35	10	19.46	10	20.58	British	Pacific Steam Navigation Co	391.5	50.2½	25.6	Liverpool	Corral	General	4,928	5,933	1,282
Clare	10	12.55	11	6.01	11	13.21	11	20.49	American	A. H. Bull Steamship Co	327.2	46.2	14.4	New York	Taltal	General	2,012	3,730	2,725
West Cactus	10	14.42	11	6.15	11	14.15	11	15.35	American	Swayne & Hoyt (S. B.)	410.5	54.0	20.0	Buenos Aires	San Pedro	General	4,117	6,619	4,890
Bethelridge [1]	10	16.45	11	7.30	11	15.08	11	16.20	American	Walker & Daly (S. B.)	431.0	59.2	18.0	Baltimore	San Pedro	Ballast		7,819	5,076
Thomas P. Beal	11	2.08	11	7.48	11	15.57	11	17.00	American	Mystic Steamship Co	394.1	55.1	24.0	Baltimore	San Francisco	General, steel	6,572	7,047	5,100
Lena Luckenbach	11	7.35	11	8.40	11	16.24	11	21.00	American	Luckenbach Line	425.0	53.8	26.0	Galveston	Seattle	General	6,474	7,217	5,295
Melpomene	10	21.00	11	8.43	11	17.14	12	0.20	French	Cia. Aux. de Navigacion	425.0	56.0	17.0	Key West	San Pedro	Ballast		7,085	5,050
Port MacQuarie	11	8.30	11	9.40	11	17.35	11	18.40	British	Commonwealth & Dom. Line	425.9	53.9½	23.0	London	Brisbane	General	5,100	7,553	5,405
Southwestern																			
Miller	11	8.35	11	10.20	11	18.26	12	0.45	British	Furness Withy & Co	419.0	53.0	26.6	New York	Yokohama	General	7,178	7,138	5,122
Ohioan	11	3.15	11	11.40	11	18.38	12	17.05	American	American-Hawaiian Line	407.0	53.7	20.7	Philadelphia	Portland	General	3,591	7,112	4,896
Lake Flattery	10	12.22	11	11.45	11	19.09	12	1.50	American	Panama Railroad Steamship Line	251.0	43.0	20.3	New York	Guayaquil	General	2,012	2,873	1,776
Steel Mariner	11	12.15	11	12.35	11	19.52	11	21.00	American	Isthmian Line	424.0	56.0	25.0	Baltimore	Honolulu	Steel, general	7,287	7,611	5,450
Aconcagua	11	9.10	11	13.45	11	20.37	12	7.34	Chilean	Chilean Line	422.8	56.2	21.8	New York	Valparaiso	General	1,593	7,758	4,705
Moena	11	19.30	12	6.32	12	14.28	12	16.11	Dutch	Nederland Shipping Co	480.0	60.0	17.0	Hamburg	Antofagasta	Ballast		9,609	6,512
Half Moon	11	15.55	12	6.30	12	21.06	13	16.05	American	Kerr Shipping Co. (S. B.)	400.5	54.2	26.6	Norfolk	Manila	Coal, general	6,545		
Mafresno	6	0.20	12	6.20	12	14.56			British	Sam F. Steadman	125.6	23.5	13.0	Fayal	Balboa	Ballast		288	101
China Maru	12	2.30	12	7.20	12	15.01	12	16.10	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	23.9	New York	Kobe	Iron, pet., gen	5,272	5,924	4,395
Lima [9]	12	5.35	12	8.40	12	15.20	12	22.07	Swedish	Johnson Line	367.0	51.3	23.0	Gothenborg	San Francisco	([11])	4,885	5,304	3,900
Felix Taussig	12	5.50	12	9.45	12	16.23	12	17.20	American	Munson Steamship Co	395.0	55.0	16.0	New York	Los Angeles	General	3,032	7,056	4,964
G. Harrison																			
Smith [1]	12	6.15	12	10.48	12	18.28	12	19.24	British	International Petroleum Co	550.0	72.6	24.0	New York	San Pedro	Ballast		15,476	10,751
Santa Clara	11	6.55	12	12.10	12	19.41	12	21.00	American	Pacific Mail Steamship Co	404.6	53.9	22.0	Baltimore	San Francisco	General	4,579		
Lieut. David																			
Putnam [10]			12		12	17.40			American	U. S. Army				Cristobal	Gatun	Ballast			

[1] Tanker. [9] Motor ship. [10] Launch. [11] Cement, paper, glass, iron, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Chilore	5	15.50	5	16.34	6	13.20	6	13.20	American	Ore Steamship Corporation	549.6	72.2	34.0	Cruz Grande	Baltimore	Iron ore	20,000	14,538	9,348
Delwood [12]	5	14.15	6	6.10	6	14.40	6	14.20	American	U. S. Army	320.7	46.0	19.1	Seattle	London	Grain	1,212	4,402	2,628
J. W. Van																			
Dyke [1]	5	15.15	6	6.49	6	15.35	6	15.35	American	Atlantic Refining Co	435.0	56.0	28.6	San Pedro	Philadelphia	Crude oil	10,537	7,642	5,118
Canadian																			
Spinner	6	2.00	6	7.21	6	17.10	6	21.35	British	Canadian Govt. Mer. Marine	400.0	52.0	15.0	Prisbane	Montreal	General	3,000	5,871	4,094
Nazarino	6	6.00	6	8.35	6	18.00	6	21.50	Italian	Garabaldi & Co	439.0	55.0	25.0	Portland	Genoa	Wheat	7,727	6,315	4,228
Edgar Bowling	6	3.00	6	8.51	6	18.00	6	18.00	American	Garland Steamship Co	427.0	54.0	23.0	Vancouver	New York	General, lumber	7,800	6,567	4,909
Agwipond [1]	6	5.30	6	9.40	6	18.25	6	18.25	American	International Shipping Corp	468.0	63.0	27.0	San Pedro	New York	Crude oil	13,000	9,810	6,965
Salvador	6	6.10	6	13.23	6	18.10			British	Pacific Steam Navigation Co	225.0	35.4	15.6	Champerico	Cristobal	([13])	734	1,270	735
Alden Ander-																			
son [1]	6	13.20	6	14.28	6	21.50	7	20.00	American	Associated Oil Co	426.9	54.6	27.6	San Pedro	Fall River	Refined oil	9,500	7,340	5,236
J. L. Lucken-																			
bach	6	15.30	7	6.15	7	13.18	7	13.18	American	Luckenbach Line	448.9	60.2	30.3	Pacific ports	New York	General	7,500	9,294	6,841

[1] Tanker. [12] Transport. [13] Specie, coffee, hides, wood, sugar, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Trafalgar	6	15.45	7	6 40	7	14.10	7	14 10	British	Glen & Co	385.0	52.0	24.0	San Antonio	Baltimore	Nitrate, copper	7,170	5,174	3,651
Egypt Maru	6	17.35	7	7 15	7	15.05	7	20.55	Japanese	Kokusai Kisen Kaisha	400.0	53.9	27.9	Vancouver	Europe	Wheat	8,800	7,018	5,107
Hampton Roads [1]	6	19.37	7	7.35	8	2 00			American	McAllister Brothers	431.0	59.0	25.0	San Pedro	Baltimore	Crude oil	9,000	8,093	5,541
Scottsburg	7	1.23	7	8.00	7	17.40	8	3.00	American	Barber Line	419.5	56.5	29.6	Manila	New York	([16])	9,999	8,696	6,316
Floridian	7	4.30	7	8.30	7	18.48	8	3 25	American	American-Hawaiian Line	415.0	53.7	21.0	Seattle	Philadelphia	General	5,046	7,273	5,105
Santa Teresa	7	5.15	7	9.09	7	17.15	7	22.30	American	Grace Line	360.2	61.6	23.6	Antofagasta	New York	General	2,942	5,726	4,086
Agwihavre [1]	7	10.55	7	11.42	7	19.20	7	19.20	American	International Shipping Corp	480.5	66.0	29.0	Los Angeles	Baltimore	Crude oil	13,260	9,394	6,305
Crowl [14]									American	U. S. Army				Balboa	Miraflores				
W. R. Chamberlain	7	12.10	7	13.12	7	21.10	8	1 40	American	W. R. Chamberlain & Co	288.8	44.6	21.5	Grays Harbor	New York	Lumber	3,085	2,515	1,443
Charles R. McCormick	7	13.10	7	14.33	7	21.45	7	21 45	American	McCormick Steamship Co	401.0	53.0	25.0	Tacoma	Baltimore	Lumber	6,370	7,082	5,167
America [15]	7	7.25	8	6.29	8	13.53	8	15.05	Norwegian	Wilhelm Wilhelmsen	362.0	51.5	19.10	Suva	Bilbao	Copra, shells	4,278	5,299	3,931
Frieda	7	14.37	8	7.07	8	17.22	8	17.22	American	Union Sulphur Co	348.0	45.0	20.6	Aberdeen	New York	Lumber	3,400	3,894	2,039
Tango	7	23.15	8	8.08	8	17.35	8	19.05	Norwegian	Sjur & Johs, Lothe	180.0	30.0	13.6	Iquique	Jacksonville	Nitrates	870	840	518
Sudbury	8	7.40	8	9.41	8	17.45	8	17.45	American	United-American Line	384.8	51.0	21.8	Portland	Baltimore	Lumber, general	5,560	5,571	4,033
Gerty	8	8.00	8	9.58	8	19.10	9	3.50	Italian	Societa Triestina de Nav	345.7	43.3	25.6	Vancouver	Gibraltar	Wheat	5,525	4,417	3,275
F. Q. Barstow [1]	8	10.35	8	11.40	8	22.35	8	22.35	American	Standard Oil Co. of N. J	500.0	68.2	29.9	San Pedro	Halifax	Crude oil	15,157	10,530	7,604
Sargant [14]									American	U. S. Army				Balboa	Pedro Miguel				
Anglo Mexican	8	16.50	9	6.21	9	14.20	9	16.10	British	Lawther Latta	394.0	52.4	25.7	Caleta Colosa	Baltimore	Nitrate of soda	7,838	6,163	4,452
Tustem [1]	8	19.30	9	7.03	9	15.15	9	15.20	American	Atlantic Refining Co	425.0	57.0	27.6	San Pedro	Philadelphia	Crude oil	10,000	7,204	4,768
Manchuria	9	5.45	9	8.10	9	16.00	9	22.05	American	Panama-Pacific Line	600.0	65.3	28.0	San Francisco	New York	General	3,203	17,044	11,468
Loch Katrine [15]	9	3.40	9	9.15	9	17.18	10	15.30	British	Royal Mail Steam Packet Co	485.4	62.3	29.0	Portland	Antwerp	General	9,100	10,802	7,595
Corvus	9	5.55	9	10.20	9	17.55	9	17.55	American	Planet Line	410.0	54.2	23.6	Bellingham	Baltimore	Lumber, general	6,846	6,604	4,655
Betterton [1]	9	8.25	9	10.43	9	19.35	10	7.15	American	Walker & Daly	431.0	59.2	25.0	San Pedro	New York	Crude oil	10,000	7,822	5,180
Alvarado	9	10.05	9	11.43	9	19.20	10	16.25	British	Pacific Steam Navigation Co	303.0	43.0	16.6	Callao	New York	General	1,941	2,344	1,718
Byron D. Benson [1]	9	8.45	9	12.31	9	20.15	9	20.15	American	Tidewater Oil Co	465.4	60.2	27.0	San Pedro	New York	Crude oil	11,518	5,846	6,095
Fred. W. Weller [1]	9	11.49	9	13.18	9	22.55	9	22.55	American	Standard Oil Co. of N. J	500.0	68.0	30.0	San Pedro	New York	Crude oil	15,000	10,928	7,710
Bethore	9	14.10	9	15.55	10	16.30	10	16.30	American	Ore Steamship Corp	550.3	72.2	32.10	Cruz Grande	New York	Iron ore	19,800	15,746	4,354
W. C. Teagle [1]	10	2.10	10	7.32	10	16.45	10	16.45	American	Standard Oil Co. of N. J	499.1	68.3	30.0	San Pedro	New York	Crude oil	15,000	10,991	7,891
Lancaster	10	3.00	10	8.05	10	17.25	10	17.25	American	Argonaut Steamship Co	434.3	57.7	24.6	Portland	Providence	Lumber, general	6,038	7,943	5,872
Toco [1]	10	2.30	10	9.10	10	17.55	10	19.25	British	Chile Steamship Co	440.8	56.1	27.8	Talara	Charleston	Talara crude oil	10,176	7,693	4,831
Stuart Dollar	10	9.10	10	10.10	10	19.00	10	23.15	American	Dollar Line	429.0	55.2	25.8	Vancouver	Baltimore	Lumber, general	7,677	7,584	5,538
No. 104 [14]									American	U. S. Army				Balboa	Gamboa				
Cape Ann [1]	10	14.00	11	6.10	11	14.35	11	17.40	American	Cape Steamship Co	425.8	57.0	28.0	San Pedro	New York	Crude oil	10,668	7,484	5,216

[1] Tanker. [14] Launch. [15] Motor ship. [16] Sugar, lumber, coconuts, and general.

Canadian Seigneur	10	19.15	11	7.16	11	15.55	11	19.35	British	Canadian Govt. Mer. Marine	100.0	52.3	24.6	Vancouver	New York	Lumber, general	5,923	5,893	4,135
Almelo	10	20.00	11	8.08	11	17.00	11	19.00	Dutch	Royal Netherlands W. I. Mail	440 0	62.6	26.6	Valparaiso	Liverpool	General	9,255	9,403	6,653
Texas Maru	10	20.30	11	9.25	11	17.45	11	17.45	Japanese	Kokusai Kisen Kabushiki Kaisha	425.0	53.6	28.0	Vancouver	Norfolk	Wheat	9,269	6,899	5,139
Baltic [1]	11	8.20	11	10.12	11	19.10	11	19.10	Danzig	Standard Oil Co. of N. J.	509.5	64 0	28.9	San Pedro	Montreal	Crude oil	13,731	10,550	7,916
Victolite [1]	11	9.40	11	10.58	11	21.25	11	21.25	British	Imperial Oil Co	500.4	68.2	30.3	Talara, Peru	New York	Crude oil	15,480	11,049	7,732
Commercial Guide	11	12.00	11	13.48	11	22.20	11	22.20	American	Moore & McCormick Co	425.0	55.0	26.6	Portland	New York	General	6,500	6,597	4,752
Lautaro	11	19.45	12	6.28	12	14.20	12	15.55	British	Pacific Steam Navigation Co	399.1	52.8	22.6	Corral	Liverpool	([18])	5,060	6,759	4,840
Billiton	12	2.20	12	7.26	12	15.30	12	15.30	Dutch	Netherland Steamship Co	406.6	51.3	29.0	Caleta Colosa	Alexandria	Nitrate of soda	7,770	6,191	2,959
Mantaro	11	21.00	12	8.21	12	16.30			Peruvian	Cie. Peruana de Vapores	367.3	46.0	18.3	Callao	Cristobal	General	1,830	4,838	2,959
Eastern Knight	12	9.35	12	10.28	12	18.00	12	18.00	American	Columbia Pacific Shipping Co	415.1	55.7	27.3	Portland	Baltimore	Lumber, copper	9,000	7,643	5,657

[1] Tanker. [18] Cotton, oats, hides, wheat, wool, and oil cake. Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.				*DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 6	Heredia	United Fruit Co	New Orleans via Habana.	July 6	Pastores	United Fruit Co	New York via Habana.
July 6	Pastores	United Fruit Co	Port Limon.	July 6	Heredia	United Fruit Co	Bocas del Toro.
July 7	Arabia [19]	San Blas Developing Co	Colon.	July 9	Heredia	United Fruit Co	New Orleans via Habana.
July 8	Ulua	United Fruit Co	New York via Habana.	July 9	Ulua	United Fruit Co	Port Limon.
July 8	Turrialba	United Fruit Co	New Orleans via Habana.	July 9	Turrialba	United Fruit Co	New Orleans via wayports.
July 9	Heredia	United Fruit Co	Bocas del Toro.	July 9	Panama	Panama Railroad Steamship Line	New York via Haiti.
July 9	Carrillo	United Fruit Co	New York via Kingston.	July 9	La Louise [20]	Hyatt Manganese Co	Colon.
July 9	La Louise [20]	Hyatt Manganese Co	Colon.	July 10	Carrillo	United Fruit Co	Colombian ports.
July 10	Sixaola	United Fruit Co	Colombian ports.	July 10	Sixaola	United Fruit Co	New York via Kingston.
July 11	Cristobal	Panama Railroad Steamship Line	New York via Haiti.	July 12	Bayano	Elders & Fyffes, Ltd	Kingston.
July 11	Ulysses and Darien	Panama Railroad Steamship Line	Norfolk.				
July 12	Bayano	Elders & Fyffes, Ltd	Port Limon.				
July 12	Cartago	United Fruit Co	New Orleans via Habana.				

[19] Motor schooner. [20] Schooner.

PORT OF BALUOA.

July 3	Indra [21]	Winge & Co	Seattle.	July 7	Indra [21]	Winge & Co	Valparaiso.
July 3	Sea Lion [22]	Shipowners & Mer. Tugboat Co	San Francisco.	July 7	Sea Lion [22]	Shipowners & Mer. Tugboat Co	San Francisco.
July 5	Willet and barge	Merritt, Chapman & Scott	High seas.	July 7	Willet and barge	Merritt, Chapman & Scott	High seas.
July 8	Montebello	Union Oil Co	Port San Luis.	July 9	Montebello	Union Oil Co	Port San Luis.
July 4	Iocoma	International Petroleum Co	Talara.	July 12	Iocoma	International Petroleum Co	Talara.
July 10	Dos Hermanos	R. Neuman	Panama.	July 10	Dos Hermanos	R. Neuman	Chame.

[21] Motor ship. [22] Tug.

* Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Three Weeks Ending July 12, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Jamaica	Pacific Steam Navigation Co	June 23	June 24	1	
Cauca	Pacific Steam Navigation Co	June 23	June 24	13	
Ranenfjord	Norwegian-American Line	June 23	June 24	882	
Chaumont	U. S. Navy	June 22	June 22	44	
Dos Hermanos	Richard Newmann	June 24	June 24		55
Corinto	Pacific Mail Steamship Co	June 25	June 26	28	
Leon XIII	Compania Transatlantica	June 26	June 26	113	
Alkmaar	Royal Netherlands W. I. Mail	June 27	June 27	265	
Kroonland	Panama-Pacific Line	June 27	June 27		1
Ecuador	Pacific Mail Steamship Co	June 28	June 28	8	
Toba Maru	Nippon Yusen Kaisha	June 30	July 1	223	
Atrato	Colombian Transport Co	July 1	July 4	30	143
Edenton	United States Shipping Board	July 2	July 2	354	15
Almirante	M. Valencia	July 2	July 2	20	
Jamaica	Pacific Steam Navigation Co	July 3	July 3		20
Indra	Winge & Co	July 3	July 3	1,293	
Helder	Royal Netherlands W. I. Mail	July 4	July 4	15	
Jadden	United States Shipping Board	July 4	July 4	20	
Iocoma	International Petroleum Co	July 4	July 4	2,257	
Salvador	Pacific Steam Navigation Co	July 6	July 6	½	
Willet	Merritt & Chapman Wrecking Co	July 5		[3] 300	
Montebello	Union Oil Co	July 8	July 8	10,000	
Borgland	Peter Olsen	July 8	July 9	1,571	
				[3] 99	
Alvarado	Pacific Steam Navigation Co	July 9	July 9	5	
Venezuela	Pacific Mail Steamship Co	July 12	July 13	238	
Lima	Johnson Line	July 12	July 12	10	
				[3] 35	
Dos Hermanos	Newmann	July 7	July 7		9

[3] Transit.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $2.00 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and $2.00 at Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour, as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Ships' Chandlery Supplies.

Panama Canal Storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

Toll Charges for Transit of the Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengersor cargo, per net vessel ton (each 100 cubicfeet) of actual earning capacity.. .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and Navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4, of the tariff

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Pacific Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line. The Pacific Mail and Chilean Line charge $6 for the trip, the others $10. The several services together afford about 4 transits of the Canal each way every week.

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Traffic for First Fifteen Days of July.

During the first 15 days of July, 1924, 218 commercial vessels transited the Canal and paid tolls to the amount of $969,608.70. In this number of transits and amount of tolls collected are included the U. S. Army cableship *Dellwood*, which transited the Canal on July 6, on which tolls were assessed on account of her having on board a cargo of wheat, shipped to London.

These 218 transits represent a considerable increase over the first half of June, 1924, the low month for more than a year. During the first half of June there were 197 transits, on which tolls to the amount of $937,024.58 were collected. Thus, the first half of July shows an increase in transits of 21, and in collection of tolls of $35,284.12. Transits for the first half of July were made up of 120 bound from Atlantic to Pacific, and 98 from Pacific to Atlantic, which indicates a future increase in Atlantic-bound traffic as very nearly all of the Pacific-bound traffic returns. The apparent discrepancy between the increase in transits and tolls collections for July over June may be accounted for by the fact that practically all of the ships in ballast through the Canal are bound for the Pacific, returning later laden.

The average daily number of transits for the first half of July was 14.53; for the calendar year to July 15th, 13.90; and for the fiscal year 1924, 14.29. The average daily collection of tolls for the first half of July was $64,640.58; for the calendar year to July 15th, $64,975.15; and for the fiscal year 1924, $66,368.75. Thus the daily number of transits for the first half of July was greater than for either of the other periods while the daily tolls collection was less. This, as above, is due largely to the preponderance of traffic bound for the Pacific, a large per cent of which is in ballast.

In the following tabulation are given the total transits, tolls collections, and the daily averages for the calendar year 1924, to July 15, by months:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	476	$2,216,855.01	15.35	$71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
May	417	1,955,764.91	13.45	63,089.19
June	377	1,792,821.22	12.57	59,760.71
July (15 days only)	218	969,608.70	14.53	64,640.58
Totals	2,738	12,800,105.53	13.90	64,975.15

The average tolls collections from the 120 Pacific-bound transits was $4,161.07; from the 98 transits to the Atlantic, $4,798.78; and from the total number, 218, $4,447.75.

CANAL WORK IN JUNE.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of June, 1924:

BALBOA HEIGHTS, C. Z., July 19, 1924.

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of June, 1924, which closes the fiscal year ending June 30, 1924:

CANAL TRAFFIC FOR FISCAL YEAR.

The fiscal year 1924 was the tenth fiscal year of Canal operation and the year with the heaviest traffic through the Canal. During the year, 5,230 commercial vessels and 418 government vessels, a total of 5,648 seagoing ships passed through the Canal. They averaged 15.43 per day. In addition, 138 nonseagoing launches transited the Canal, including which the total transits for the year were 5,786, a daily average of 15.8.

Tolls on the 5,230 commercial transits were $24,290,963.54, and on the 138 launches, $529.25, making a total tolls collection for the year of $24,291,492.79. The monthly average was $2,024,291.07. Had tolls been assessed on the 418 government vessels at commercial rates, there would have been added to this figure approximately $1,106,445.37, bringing the total for the year to $25,397,938.16, and making the monthly average on all transits $2,116,494.85.

The 5,230 commercial vessels carried 26,994,710 long tons of cargo, and the 418 government vessels, 224,218 tons, making the total cargo through the Canal for the year 27,218,928 long tons, or a monthly average of 2,268,244 tons.

Comparing the commercial traffic for the fiscal year 1924, with the commercial traffic for the fiscal year 1923, shows the following: Transits, an increase of 1,263, or 31.8 per cent; Panama Canal net tonnage, an increase of 7,543,092 tons, or 40.5 per cent; tolls, an increase of $6,782,548.69, or 38.7 per cent; cargo carried, an increase of 7,426,835 tons, or 37.4 per cent.

The following tabulation shows the number of commercial vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by commercial vessels transiting the Canal each month during the fiscal years 1923 and 1924.

Month.	Number of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	Fiscal year.		Fiscal year.		Fiscal year.		Fiscal year.	
	1923.	1924.	1923.	1924.	1923.	1924.	1923.	1924.
July.....	251	474	1,127,871	2,310,027	1,211,100	2,337,784	$1,094,127.42	$2,124,830.02
August....	257	454	1,084,133	2,232,590	1,165,950	2,168,750	1,055,336.75	2,059,656.97
September.	240	413	1,070,410	2,044,552	1,138,188	2,168,703	1,020,064.55	1,902,453.61
October...	294	427	1,310,392	2,139,475	1,445,863	2,127,567	1,255,508.00	1,988,607.69
November.	294	436	1,337,280	2,193,865	1,426,850	2,218,295	1,264,436.54	2,058,188.61
December.	304	506	1,375,263	2,516,491	1,535,102	2,494,634	1,312,570.12	2,335,729.81
January...	352	476	1,610,692	2,400,040	1,591,932	2,427,332	1,505,285.55	2,216,855.01
February..	326	418	1,529,547	2,108,879	1,563,278	2,213,616	1,423,954.21	1,964,155.59
March.....	409	429	1,988,192	2,136,079	1,940,928	2,272,472	1,827,718.44	1,997,138.83
April.....	404	403	2,007,690	2,053,171	2,187,145	2,158,721	1,878,938.15	1,903,761.27
May.....	419	417	2,128,414	2,085,670	2,265,083	2,353,986	1,972,216.04	1,955,764.91
June.....	417	377	2,035,902	1,928,039	2,096,446	2,022,850	1,893,643.80	1,792,821.22
Totals...	3,967	5,230	18,605,786	26,148,878	19,567,875	26,994,710	17,508,199.57	24,290,963.54

Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

CANAL TRAFFIC IN JUNE, 1924.

NUMBER OF TRANSITS.

The number of transits through the Canal during June, 1924, was 377 commercial vessels, 13 government vessels, and 2 launches, a total of 392 transits. The average daily number of commercial transits was 12.57, as compared with 13.45 for May, 1924, 13.43 for April, and 14.29 for the fiscal year 1924. June was the only month of the fiscal year 1924 in which the total commercial transits fell below 400.

The total number of vessels and craft transiting the Canal during the month of June, 1924, as compared with June, 1923, and June, 1922, is shown in the following table:

	June, 1924.	June, 1923.	June, 1922.
Commercial vessels	377	417	228
Noncommercial vessels (Army and Navy)	13	31	24
Launches (under 20 tons measurement)	2	7	4
Total craft through Canal	392	455	256

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	11	6	17
Pedro Miguel	16	17	33
Miraflores	15	16	31
Totals	42	39	81

The following is a summary of commercial traffic in June, 1924, as compared with June, 1923, June, 1922, and the average month's traffic for the fiscal year 1924:

	June, 1924.	June, 1923.	June, 1922.	Average per month for fiscal year 1924.
Number of vessels	377	417	228	436
United States net tonnage	1,519,841	1,664,051	773,798	1,746,436
Panama Canal net tonnage	1,928,039	2,035,902	970,713	2,179,073
Registered gross tonnage	2,451,577	2,638,884	1,228,038	2,784,356
Registered net tonnage	1,519,869	1,659,866	776,410	1,744,885
Tolls	$1,792,821.22	$1,898,043.80	$932,290.42	$2,024,246.96
Tons of cargo carried	2,022,850	2,096,446	977,478	2,249,559

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year 1924.
	June, 1924.	June, 1923.	June, 1922.	
Number of transits	12.57	13.9	7.6	14.29
Panama Canal net tonnage	64,268	67,863	32,357	71,446
Tolls	$59,760.71	$63,268.13	$31,076.35	$66,368.75
Tons of cargo carried	67,428	69,881	22,583	73,756

From the foregoing it will be seen that the average daily traffic in June, 1924, as compared with June, 1923, shows the following: Commercial transits, a decrease of 9.37 per cent; Panama Canal net tonnage, a decrease of 5.29 per cent; tolls, a decrease of 5.54 per cent; and tons of cargo carried, a decrease of 3.51 per cent.

Comparing the averages for June, 1924, with the daily averages for the fiscal year 1924, the following is shown: Commercial transits, a decrease of 12 per cent; Panama Canal net tonnage, a decrease of 10 per cent; tolls, a decrease of 11 per cent; and tons of cargo carried, a decrease of 8.58 per cent.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and cargo per vessel transiting the Canal during the month of June, 1924, as compared with June, 1923, and June, 1922, are shown in the following tabulation:

	Average per vessel.		
	June, 1924.	June, 1923.	June, 1922.
United States equivalent net tonnage	4,031	3,990	3,394
Panama Canal net tonnage	5,114	4,882	4,257
Registered gross tonnage	6,503	6,328	5,386
Registered net tonnage	4,031	3,980	3,405
Tolls	$4,755.49	$4,551.66	$4,089.99
Tons of cargo (including vessels in ballast)	5,366	5,027	4,287
Tons of cargo (laden vessels only)	6,483	6,502	4,724

UNITED STATES INTERCOASTAL TRAFFIC.

The following statement gives a summary of the intercoastal traffic through the Canal for the month of June, for the past 4 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
June, 1921.....	17	96,199	68,809	11	53,986	57,234	28	150,185	126,043
June, 1922	34	161,891	181,651	25	121,156	113,692	59	283,137	295,343
June, 1923	105	579,163	280,370	90	505,059	877,286	195	1,084,222	1,157,656
June, 1924.....	75	410,866	193,659	78	446,634	705,865	153	857,500	899,524

As in the preceding months, this trade shows perceptible decreases which are due to the decrease of tanker traffic through the Canal. In June, 1923, there were 173 transits of tankships, while in June, 1924, there were 105, a difference of 68. The tanker traffic is over 90 per cent United States intercoastal. Traffic over other routes shows consistent increases.

UNITED STATES SHIPPING BOARD VESSELS.

Eighteen vessels of the United States Shipping Board transited the Canal during the month of June, 1924; of these, 9 were employed in the United States intercoastal trade. Of the 18 vessels, 9 were tankships, 8 general cargo carriers, and one was a tug.

The following table shows the number, aggregate Panama Canal net tonnage, and cargo tonnage of United States Shipping Board vessels through the Canal during the month of June, for the past 3 years:

Month and year.	Atlantic to Pacific.			Pacific to Atlantic.			Totals.		
	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.	No. of vessels.	Panama Canal net tonnage.	Cargo tonnage.
June, 1922.....	9	44,694	50,219	4	18,833	16,230	13	63,527	66,449
June, 1923.....	16	81,434	52,651	10	54,540	73,896	26	135,974	126,547
June, 1924.....	9	42,742	28,332	9	43,863	65,299	18	96,605	93,631

ORIGIN AND DESTINATION OF TONNAGE.

The following tabulation shows the origin and destination of all tonnage passing through the Canal during the month of June, 1924, by principal geographical areas, as compared with June, 1923, and June, 1922. The figures represent the net tonnage as determined by the Panama Canal rules of measurement:

Areas.	June, 1924.	June, 1923.	June, 1922.
Origin, Pacific-bound tonnage.			
East coast of United States	628,848	805,406	367,338
Europe (including British Isles)	254,958	217,193	159,506
East coast of Canada	49,913	22,525	10,188
East coast of Mexico	9,583	23,038	22,949
West Indies	10,974	12,666	4,143
Cristobal, C. Z	11,252	28,605	18,182
East coast of South America	15,661	1,864	11,890
Totals	981,169	1,111,297	594,196
Destination, Pacific-bound tonnage.			
West coast of United States	517,655	696,567	197,065
West coast of South America	202,818	204,410	158,597
Australasia	117,131	84,798	85,551
Far East	79,370	90,571	99,896
Canada, west coast	50,414	26,126	34,556
West coast of Mexico and Central America	13,781	8,825	17,621
Totals	981,169	1,111,297	594,196
Origin, Atlantic-bound tonnage.			
West coast of United States	530,940	638,527	160,229
West coast of South America	181,443	126,383	110,603
Australasia	55,974	52,840	9,982
Far East	19,144	21,151	16,857
Canada, west coast	150,938	77,332	61,433
West coast of Mexico and Central America	8,431	8,372	17,413
Totals	946,870	924,605	376,517

Areas.	June, 1924.	June, 1923.	June, 1922.
Destination, Atlantic-bound tonnage.			
East coast of United States	605,001	636,679	215,947
Europe (including British Isles)	280,655	154,412	111,440
East coast of Mexico	21,728	69,492	16,301
East coast of Canada	21,377	12,731	.....
Cristobal, C. Z	13,195	27,738	27,306
East coast of South America	4,914	9,113	4,901
Miscellaneous	.....	14,440	622
Totals	946,870	924,605	376,517

TOLLS.

Under the present method of assessing tolls, the revenue from this source during the month of June, 1924, was $1,792,821.22. Had the net tonnage as determined by the Panama Canal rules of measurement been used exclusively, this revenue would have been $2,162,864.16, a difference of $370,042.94. This difference would have been distributed by nationality of vessels as follows:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	$54,850.78	$45,058.30	$99,909.08
Chilean	1,257.65	1,256.00	2,513.65
Danish	1,778.25	2,172.80	3,951.05
Dutch	7,535.40	7,740.75	15,276.15
French	903.35	2,575.00	3,478.35
German	10,878.35	9,767.75	20,646.10
Greek	886.85	.....	886.85
Italian	1,147.55	945.40	2,092.95
Japanese	1,103.15	3,325.25	4,428.40
Jugo-Slavic	1,186.85	.....	1,186.85
Norwegian	2,782.35	3,987.00	6,769.35
Peruvian	4,965.50	3,315.75	8,281.25
Spanish	1,471.60	1,230.15	2,701.75
Swedish	.....	3,105.75	3,105.75
United States	67,045.26	127,770.15	194,815.41
Totals	157,792.89	212,250.05	370,042.94

The additional revenue that would have been assessed against vessels of United States registry would have been made up with respect to channels of trade in which the vessels were engaged as follows:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	$53,787.80	$108,280.20	$162,068.00
United States foreign trade	12,482.76	18,561.80	31,044.56
United States to Canal Zone trade	774.70	928.15	1,702.85
Totals	67,045.26	127,770.15	194,815.41

Of the additional $370,042.94, that would have been collected by using exclusively Panama Canal rules of measurement, $20,955.60 represents the portion that would have been assessed on account of deck cargo.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Canal in June, 1924, is shown in the following table, segregated by nationality of vessels. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, June, 1924.
British	1.00	1.36	1.18
Chilean	.49	1.07	.76
Colombian	.....	.93	.93
Danish	1.66	1.65	1.66
Dutch	1.13	1.48	1.34
French	.73	1.44	1.13
German	.82	1.20	.98
Greek	1.62	.....	1.62
Italian	.22	1.47	.87

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Total, June, 1924.
Japanese	.99	1.58	1.35
Jugo-Slavic	1.62	.....	1.62
Norwegian	1.35	1.78	1.56
Peruvian	.22	.52	.34
Spanish	.09	.....	.06
Swedish	.....	1.40	1.40
United States	.94	1.62	1.40
Totals, June, 1924	.95	1.52	1.29
Totals, June, 1923	1.15	1.57	1.40
Totals, June, 1922	1.09	1.13	1.10

The ratio of cargo tonnage to Panama Canal net tonnage by the leading trade routes is shown in the following tabulation, vessels in ballast being included:

Route.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
United States intercoastal trade	.46	1.58	1.04
United States and South America	.37	1.97	1.24
United States and Europe	.55	1.63	1.08
United States and Far East	1.15	1.54	1.22
Europe and South America	.56	1.10	.78
Europe and Canada	.80	1.65	1.43
Cristobal and South America	.28	.58	.44
United States and Australasia	1.18	.07	1.09
United States and Canada	.09	1.52	.95
Canadian intercoastal trade	.41	1.75	1.33

COMMODITY STATISTICS.

The total cargo through the Canal during the month of June, 1924, was 2,022,850 tons, which is 73,596 tons less than in June, 1923. Mineral oil shipments from the Pacific to the Atlantic show 609,000 tons for June, 1924, as against 934,707 for June, 1923, a decrease of 325,707, or nearly one-third. Mineral oils from the Atlantic to the Pacific show a slight increase over June, 1923; lumber from Pacific to Atlantic, an increase of approximately one-third; and wheat shipments from Pacific to Atlantic are nearly five times as great.

If mineral oils from the Pacific to the Atlantic are deducted from the totals for June, 1924, and June, 1923, the resulting figures are for June, 1924, 1,413,850 tons; for June, 1923, 1,161,739 tons. Comparing these figures there is shown an increase for June, 1924, over June, 1923, of 252,111 tons, or over 21 per cent. As the greater part of the shipments of mineral oils in this direction are from the fields of Southern California and have been more or less abnormal, the indications are of a steady and constant growth of normal traffic through the Canal.

From the Atlantic to the Pacific the principal items were various manufactured goods, mineral oils, coal and coke, cement, and various metals in the order named.

From the Pacific to the Atlantic the principal items were mineral oils, lumber, wheat, various ores, and nitrates in the order named.

The following commodity statistics were compiled from cargo declarations submitted by masters of vessels at the time of transits, and, while incomplete, are indicative of the kind and quantity of commodities carried by vessels transiting the Canal. A brief summary of the principal items is indicated below, the figures representing tons of 2,240 pounds:

Commodity.	June, 1924.	June, 1923.	June, 1922.
Atlantic to Pacific.			
Ammonia	2,994	9,976	660
Automobiles	7,956	4,710	2,682
Canned goods	4,634	1,463	2,085
Cement	26,071	18,389	1,904
Chemicals	2,918	6,185	1,772
Coal and coke	37,926	11,297	37,080
Coffee	3,975	681	1,084
Cotton	1,184	8,373	4,893
Creosote	.....	9,412	.....

Commodity.	June, 1924.	June, 1923.	June, 1922.
Atlantic to Pacific—Continued.			
Manufactured goods:			
Iron and steel	103,655	160,375	134,947
Machinery	11,390	17,831	4,904
Railroad material	8,479	15,051	19,730
Textiles	6,198	9,783	5,812
Other	3,502	4,548	23,136
Metals, various	23,606	28,246	27,633
Mineral oils:			
Crude petroleum	19,570	27,607	49,362
Lubricating	10,994	14,468	3,451
Refined	71,821	48,929	44,387
Phosphates	5,529	5,292	.....
Paper	5,476	6,944	2,333
Silver sand	291	6,270	100
Sugar	11,133	697	7,474
Sulphur	10,219	19,237	11,450
Tobacco	6,647	4,264	1,139
Other and general	210,594	215,961	198,359
Totals	596,762	655,989	586,377
Pacific to Atlantic.			
Barley	20,282	.....	17,909
Borax	4,331	395	6,060
Beans	2,390	7,820	5,407
Canned goods	21,772	23,709	15,686
Coffee	6,899	7,036	7,587
Cold storage	17,784	12,905	4,314
Cotton	4,180	8,373	4,996
Fruits, dried	6,513	66	1,248
Lumber	251,445	170,216	82,727
Metals, various	35,350	42,634	21,487
Nitrates	46,368	40,416	24,043
Mineral oils:			
Crude petroleum	511,578	869,091	13,451
Lubricating	9,461	14,339	11,300
Refined	87,961	51,277	23,908
Ores, various	105,329	40,407	14,958
Sugar	20,016	11,044	15,505
Wheat	162,644	33,436	41,285
Wool	8,929	10,003	8,051
Rice	7,933	6,162	2,046
Cocoa	2,964	170	3,451
Copra	5,933	6,316	761
Flour	6,426	857	6,812
Hemp	3,346	.....	495
Other and general	76,254	83,785	57,614
Totals	1,426,088	1,440,457	391,101

TRAFFIC BY TRADE ROUTES.

A detailed statement of traffic through the Panama Canal by trade routes for the month of June, 1924, was published in THE PANAMA CANAL RECORD of July 9, 1924.

The following tabulations show the number of vessels, Panama Canal net tonnage, and tons of cargo moving over the principal trade routes during the month of June, 1924, as compared with the same month in the years 1923, and 1922:

Route.	Atlantic to Pacific. Number of vessels.			Pacific to Atlantic. Number of vessels.		
	June, 1924.	June, 1923.	June, 1922.	June, 1924.	June, 1923.	June, 1922.
United States intercoastal trade	76	105	34	78	90	25
United States and South America	18	22	14	21	17	12
Europe and South America	21	14	14	13	8	8
United States and Far East	11	17	19	3	4	3
Europe and United States	11	13	5	12	9	6
Europe and Canada	7	6	5	20	7	7
Europe and Australasia	9	8	7	7	6	1
Mexico and South America	2	2	4	2	1	2
Cristobal and South America	4	8	9	4	3	11
United States and Canada	5	1	1	10	8	4
United States and Australasia	9	6	7	1	2	1
Miscellaneous	20	25	16	13	35	13
Totals	193	227	135	184	190	93

	Atlantic to Pacific.			Pacific to Atlantic.		
	Panama Canal net tonnage.			Panama Canal net tonnage.		
	June, 1924.	June, 1923.	June, 1922.	June, 1924.	June, 1923.	June, 1922.
United States intercoastal trade	416,745	579,163	161,981	446,634	505,059	121,156
United States and South America	81,830	83,834	57,326	101,731	64,054	43,627
Europe and South America	102,391	68,819	58,517	68,505	34,978	35,784
United States and Far East	65,764	90,571	95,705	15,334	21,151	16,857
Europe and United States	61,416	74,122	27,867	58,608	40,257	29,803
Europe and Canada	33,604	20,676	26,188	99,903	36,948	37,952
Europe and Australasia	57,527	50,504	44,934	47,583	38,848	6,581
Mexico and South America	9,583	9,554	17,638	9,254	4,723	10,990
Cristobal and South America	6,055	14,415	14,285	6,867	2,459	19,580
United States and Canada	33,044	5,450	4,225	50,062	35,385	23,481
United States and Australasia	45,350	30,224	37,525	4,321	8,498	3,401
Miscellaneous	67,860	83,965	48,005	38,068	132,245	27,305
Totals	981,169	1,111,297	594,196	946,870	924,605	376,517
	Tons of cargo carried.			Tons of cargo carried.		
United States intercoastal trade	193,659	280,370	181,651	705,865	877,286	113,692
United States and South America	30,661	32,354	36,136	191,467	99,531	59,551
Europe and South America	57,617	29,451	47,963	75,696	33,042	32,594
United States and Far East	73,891	127,917	140,962	23,717	30,159	19,936
Europe and United States	33,867	33,579	8,404	95,314	69,546	49,541
Europe and Canada	26,735	24,300	23,809	164,464	59,140	55,579
Europe and Australasia	50,139	46,276	29,357	36,063	31,625	5,440
Mexico and South America	18,100	19,351	32,888	7,758	.....	.....
Cristobal and South America	1,681	2,649	2,827	3,976	1,649	8,344
United States and Canada	3,102	8,370	5,500	76,251	45,555	31,208
United States and Australasia	53,606	36,542	37,177	300	2,280	4,500
Miscellaneous	53,704	14,830	39,703	45,217	190,644	10,736
Totals	596,762	655,989	586,377	1,426,088	1,440,457	391,101

LATIN-AMERICAN TRAFFIC.

In the following tabulation is given a summary of this traffic for the month of June, in the years 1922, 1923, and 1924, and for May, 1924:

Period.	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo carried.
June, 1922	99	328,028	$307,868.15	268,195
June, 1923	128	460,577	420,546.76	392,252
June, 1924	109	450,780	422,897.94	449,040
May, 1924	124	490,025	469,753.04	577,375

It will be noted that June, 1924, as compared with the preceding month, shows decreases in all respects; as compared with June, 1923, it shows decreases in the number of transits and Panama Canal net tonnage, and increases in tolls collected and tons of cargo carried; as compared with June, 1922, the figures for June, 1924, show increases in all respects.

The principal commodities bound to Latin-America were various manufactured goods, coal and coke, mineral oils, and cement, in the order named. From Latin-America the principal commodities were various ores, mineral oils, nitrates, various metals, and wheat, in the order named.

Nitrate shipments from South America during the month totaled 46,255 tons, as against 84,289 tons in May, 1924, and 121,925 tons in April, 1924. Shipments of iron ore from Chile to Baltimore and New York are beginning to take first rank in total tons of cargo from South American ports, these shipments having grown from 10,600 tons in February, 1922, to approximately 100,000 tons per month at the present time.

The following tabulations show the tonnage, tolls, and cargo of all vessels routed to or from Latin-America, segregated by nationality and direction, with the totals in each direction, as compared with the totals for the month of June, 1923, and 1922:

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	16	50,698	61,069	82,097	50,667	$58,099.84	51,266
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	2,111
Colombian	1	67	77	153	68	55.44	.....
Danish	2	5,283	6,945	8,650	5,344	6,603.75	11,804
Dutch	6	23,263	30,408	37,427	23,403	23,351.09	13,728
French	2	8,896	8,869	10,388	6,359	10,642.80	4,224
German	5	20,315	28,048	33,327	20,076	25,393.75	19,954
Greek	1	3,167	4,038	5,219	3,181	3,958.75	6,562
Italian	1	2,705	3,774	4,676	2,636	3,381.25	832
Japanese	2	7,763	9,199	12,430	7,667	8,254.57	523
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,018
Norwegian	2	5,996	9,530	9,641	6,047	7,210.70	3,606
Peruvian	3	4,010	8,315	12,666	6,614	5,012.50	1,808
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	501
United States	15	46,581	55,389	79,290	47,044	45,988.56	19,384
Totals, June, 1924	59	188,958	239,564	315,848	190,723	210,720.50	142,321
Totals, June, 1923	67	192,902	240,343	322,310	193,282	197,022.86	93,135
Totals, June, 1922	55	154,609	191,669	254,371	157,465	180,392.04	156,996
Pacific to Atlantic.							
British	19	78,839	93,818	128,605	79,588	96,322.77	119,079
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,021
Colombian	1	334	335	864	614	402.00	310
Dutch	2	7,968	11,060	12,704	7,682	9,960.00	15,004
French	1	4,326	4,363	5,903	3,743	5,235.60	6,774
German	4	13,309	18,461	21,791	13,028	16,636.25	22,217
Japanese	1	4,147	5,136	6,578	4,112	5,183.75	9,030
Panaman	1	218	241	371	254	173.52	.....
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	3,085
Spanish	2	6,045	7,322	9,845	5,947	7,556.25	299
United States	16	50,226	59,864	85,264	50,215	62,541.05	125,900
Totals, June, 1924	50	171,945	211,215	288,596	174,259	212,177.44	306,719
Totals, June, 1923	61	180,908	220,234	299,204	180,101	223,523.90	299,117
Totals, June, 1922	44	108,899	136,359	173,747	111,210	127,476.11	111,205

TRAFFIC BY NATIONALITY.

Vessels of United States registry made up approximately 54.9 per cent of the total commercial transits of the Canal during June, 1924; comprised about 57.4 per cent of the Panama Canal net tonnage; and carried about 57.3 per cent of the total cargo in transit through the Canal.

The following statements show the commercial traffic through the Canal in June, 1924, classified according to nationality of vessels, by direction, and the combined traffic in both directions, together with the totals for June, 1923, and 1922:

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Atlantic to Pacific.							
British	53	200,749	260,436	325,270	202,820	$239,692.10	222,017
Chilean	1	3,479	4,672	7,310	3,976	4,348.75	2,111
Colombian	1	67	77	153	68	55.44	.....
Danish	2	5,283	6,945	8,650	5,344	6,603.75	11,804
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
Dutch	7	27,810	37,464	44,737	27,898	29,034.84	22,517
French	3	14,973	15,952	20,190	11,891	18,239.05	11,568
German	8	33,148	43,471	51,375	30,944	41,286.85	35,883
Greek	1	3,167	4,038	5,219	3,181	3,958.75	6,562
Italian	1	2,705	3,774	4,676	2,636	3,381.25	832
Japanese	4	14,471	16,818	22,101	14,248	16,639.57	11,206
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,018
Norwegian	3	10,519	15,157	16,734	10,526	12,864.45	13,284
Peruvian	3	4,010	8,315	12,666	6,614	5,012.50	1,808
Spanish	1	4,120	5,518	7,578	4,402	5,150.00	501
United States	103	429,916	546,903	693,068	428,854	455,314.26	250,651
Totals, June, 1924	193	762,545	981,169	1,233,711	761,814	850,549.83	596,762
Totals, June, 1923	227	904,553	1,111,297	1,436,594	900,817	954,803.23	655,989
Totals, June, 1922	135	476,105	594,196	752,082	479,291	571,161.36	586,377

Nationality.	No. of vessels.	TONNAGE. United States equivalent.	Panama Canal net.	Registered. Gross.	Registered. Net.	Tolls.	Tons of cargo.
Pacific to Atlantic.							
British	46	190,281	232,489	305,992	190,927	$235,377.62	311,225
Chilean	1	3,512	4,705	7,310	3,976	4,390.00	5,021
Colombian	1	334	335	864	614	402.00	310
Danish	2	8,480	10,644	13,287	8,470	10,600.00	17,590
Dutch	5	23,457	30,531	37,456	23,187	29,321.25	45,126
French	5	21,293	23,993	28,605	17,800	26,258.60	33,595
German	6	20,381	28,812	33,576	20,126	25,476.25	34,719
Italian	1	3,556	4,090	5,794	3,590	4,445.00	6,002
Japanese	4	17,005	20,345	25,972	16,755	21,088.75	32,210
Norwegian	2	6,396	9,503	10,470	6,392	7,995.00	16,932
Panaman	1	218	241	371	254	173.52	.....
Peruvian	2	3,021	5,910	9,361	5,100	3,776.25	3,085
Spanish	2	6,045	7,322	9,845	5,947	7,556.25	299
Swedish	2	5,517	8,335	9,375	6,395	6,896.25	11,631
United States	104	447,800	559,615	719,588	448,522	558,514.65	908,343
Totals, June, 1924	184	757,296	946,870	1,217,866	758,055	942,271.39	1,426,088
Totals, June, 1923	190	759,498	924,605	1,202,290	759,049	943,455.85	1,440,457
Totals, June, 1922	93	297,693	376,517	475,956	297,119	361,129.06	391,101
Combined traffic.							
British	99	391,030	492,925	631,262	393,747	475,069.72	533,242
Chilean	2	6,991	9,377	14,620	7,952	8,738.75	7,132
Colombian	2	401	412	1,017	682	457.44	310
Danish	4	13,763	17,589	21,937	13,814	17,203.75	29,394
Danzig	1	5,513	7,916	8,988	5,173	5,699.52	.....
Dutch	12	51,267	67,995	82,193	51,085	58,356.09	67,643
French	8	36,266	39,945	48,795	29,691	44,497.65	45,163
German	14	53,529	72,283	84,951	51,070	66,763.10	70,602
Greek	1	3,167	4,038	5,219	3,181	3,958.75	6,562
Italian	2	6,261	7,864	10,470	6,226	7,826.25	6,834
Japanese	8	31,476	37,163	48,073	31,003	37,728.32	43,416
Jugo-Slavic	1	2,615	3,713	4,996	3,239	3,268.75	6,018
Norwegian	5	16,915	24,660	27,204	16,918	20,859.45	30,216
Panaman	1	218	241	371	254	173.52	.....
Peruvian	5	7,031	14,225	22,027	11,714	8,788.75	4,893
Spanish	3	10,165	12,840	17,423	10,349	12,706.25	800
Swedish	2	5,517	8,335	9,375	6,395	6,896.25	11,631
United States	207	877,716	1,106,518	1,412,656	877,376	1,013,828.91	1,158,994
Totals, June, 1924	377	1,519,841	1,928,039	2,451,577	1,519,869	1,792,821.22	2,022,850
Totals, June, 1923	417	1,664,051	2,035,902	2,638,884	1,659,866	1,898,043.80	2,096,446
Totals, June, 1922	228	773,798	970,713	1,228,038	776,410	932,290.42	977,478

VESSELS WITHOUT CARGO.

The number of vessels transiting the Canal in ballast is shown in the following tabulation, the vessels being grouped according to nationality and direction of transit:

Class and nationality.	Atlantic to Pacific. No. of ships.	Atlantic to Pacific. Panama Canal net tonnage.	Atlantic to Pacific. Tolls.	Pacific to Atlantic. No. of ships.	Pacific to Atlantic. Panama Canal net tonnage.	Pacific to Atlantic. Tolls.
Tank ships:						
British	4	22,457	$16,326.00	1	4,831	$3,478.32
Danzig	1	7,916	5,699.52	.....	.....	.....
United States	43	256,200	184,530.45	.....	.....	.....
General cargo ships:						
British	4	15,152	10,807.20	.....	.....	.....
Colombian	1	77	55.44	.....	.....	.....
Dutch	3	15,472	12,579.84	.....	.....	.....
Japanese	1	5,081	3,658.32	.....	.....	.....
Norwegian	1	5,310	3,823.20	.....	.....	.....
Panaman	.....	.....	.....	1	241	173.52
United States	5	22,961	16,662.06	.....	.....	.....
Totals	63	350,626	254,132.03	2	5,072	3,651.84

CLASSIFICATION OF VESSELS.

A further classification of commercial vessels passing through the Canal during the month of June, 1924, is shown below:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	5	26,362	$27,201.25	51	326,914	$334,434.40
Ballast	48	286,573	206,555.97	1	4,831	3,478.22
General cargo ships:						
Laden	125	604,181	569,206.55	131	614,884	604,185.25
Ballast	15	64,053	47,586.06	1	241	173.52
Totals	193	981,169	850,549.83	184	946,870	942,271.39
Steamers	182	941,648	815,959.28	172	887,925	886,102.87
Motor ships	7	38,567	33,694.01	11	58,704	55,995.00
Motor schooner	1	77	55.44	.....	.....	.....
Tugs	2	550	509.85	.....	.....	.....
Motor yacht	1	327	331.25	1	241	173.52
Totals	193	981,169	850,549.83	184	946,870	942,271.39

Of the 354 steam vessels, 249 were oil burners, 102 coal burners, and 4 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the tonnage and amount of cargo carried by vessels transiting the Panama Canal free of tolls during the month of June, 1924. If tolls had been assessed against these vessels at commercial rates the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
U. S. Naval vessels:						
Cruiser	.....	.....	.....	[1] 1	8,473	$4,236.50
Submarine	.....	.....	.....	[1] 1	520	260.00
Supply ship	[2] 1	3,902	$4,682.40	.....	.....	.....
Tanker	.....	.....	.....	[1] 1	16,800	8,400.00
Transport	[1] 1	10,400	5,200.00	[2] 1	3,908	4,689.60
Tug	[2] 2	2,000	1,000.00	[1] 1	1,000	500.00
U. S. Army vessels:						
Launches	[2] 1	10	7.20	[2] 2	20	14.40
Transport	.....	.....	.....	[2] 1	5,388	6,465.60
Totals	5	16,312	10,889.60	8	36,109	24,566.10

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage.

The foregoing noncommercial vessels transiting the Canal free of tolls, carried cargo as follows:

	Tons.
Atlantic to Pacific	9,947
Pacific to Atlantic	11,239

The following statement shows the number of launches transiting the Canal during the month of June, 1924: these launches although paying tolls are excluded from the statements concerning commercial traffic:

Direction.	Number.	Tonnage.	Tolls.
Atlantic to Pacific	2	14	$13.20
Pacific to Atlantic	.....	.....	.....
Totals	2	14	13.20

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of June, 1924, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving.....tons..	68,838	39,953	108,791
Local cargo shipped.....tons..	3,627	429	4,056
Transit cargo arriving.....tons..	2,084,825	2,024,414	4,109,239

	Cristobal.	Balboa.	Total.
Transit cargo clearing....tons..	2,103,425	2,024,414	4,127,839
Cargo received for transshipment....tons..	22,378	.....	22,378
Cargo transshipped....tons..	25,992	106	26,098
Vessels supplied with bunker coal:			
Army and Navy vessels....	1	.....	1
Commercial, other than Panama Railroad....	61	1	62
Total vessels supplied with coal....	62	1	63
Coal supplied to above vessels:			
Army and Navy vessels....tons..	21	.....	21
Commercial, other than Panama Railroad....tons..	21,942	474	22,416
Total coal supplied to vessels....tons..	21,963	474	22,437
Coal issued, miscellaneous:			
Panama Canal departments....tons..	357	5	362
U. S. Army, excepting vessels....tons..	840	.....	840
Individuals and companies....tons..	289	.....	289
Totals....	1,486	5	1,491
Total issues from Panama Canal deposits:			
June, 1924....tons..	23,428	[1] 479	23,907
June, 1923....tons..	12,261	845	13,106
June, 1922....tons..	13,050	3,180	16,230
Coal on hand, July 1, 1924....tons..	78,969	.....	78,969
Coal on hand, June 1, 1924....tons..	75,831	.....	75,831
Coal received during month....tons..	26,566	[1] 479	27,045
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	4,006.28	18,908.19	22,914.47
Panama Railroad Co....bbls..	1,222.35	479.10	1,701.45
Army and Navy....bbls..	1,053.20	155.13	1,208.33
Individuals and companies....bbls..	.....	9.86	9.86
Loaned to U. S. Shipping Board....bbls..	3,560.70	.....	3,560.70
Returned to U. S. Navy account borrowed at Balboa....bbls..	2,774.20	.....	2,774.20
Total issues and sales....bbls..	12,616.73	19,552.28	32,169.01
Fuel oil received during June, 1924....bbls..	.....	51,825.23	51,825.23
Borrowed from U. S. Navy at Balboa, returned at Cristobal....bbls..	.....	2,774.20	2,774.20
Fuel oil on hand, July 1, 1924....bbls..	47,346.46	66,738.38	114,084.84
Diesel oil issued during June, 1924....bbls..	50.58	10.62	61.20
Diesel oil sold during June, 1924....bbls..	112.60	.....	112.60
Diesel oil on hand, July 1, 1924....bbls..	39,550.49	564.80	40,115.29
Oil pumped for individuals and companies....bbls..	616,144.95	430,113.59	1,046,258.54
Miscellaneous transfers....bbls..	4,100.20	7,052.28	11,152.48
Gasoline pumped for Panama Canal....bbls..	5,779.38	5,839.85	11,619.23
Gasoline pumped for individuals and companies....bbls..	.....	26,216.54	26,216.54
Total fuel oil and gasoline handled....bbls..	632,469.54	540,310.39	1,172,779.93
Admeasurement of vessels:			
U. S. equivalent certificates issued or made....	10	5	15
Measured for Panama Canal net tonnage....	1	1	2
Remeasured for Panama Canal net tonnage....	12	4	16
Panama Canal net tonnage corrected....	3	2	5
U. S. equivalent tonnage corrected....	13	6	19
Services of harbor equipment:			
Tugs, total operating hours....	424¾	349½	774¼
Launches, total operating hours....	1,067	1,237	2,304
Revenues from tug service, pilotage, etc.:			
Tug revenue....	$12,408.75	$13,866.25	$26,275.00
Pilotage....	14,744.00	5,432.00	20,176.00
Seamen....	9,172.00	8,940.00	18,112.00
Launch service....	1,375.00	2,191.50	3,566.50
Wharfage....	14,219.52	3,642.56	17,862.08
Ships measured....	105.00	50.00	155.00
Miscellaneous cash collections....	906.14	623.00	1,529.14
Vessels repaired at Panama Canal shops:			
Commercial....	40	19	59
U. S. Army and Navy....	8	9	17
Canal equipment....	9	21	30
Vessels drydocked:			
Commercial....	6	.....	6
Panama Canal equipment....	3	6	9
U. S. Army and Navy....	6	5	11
Clearances issued....	223	203	426
Bills of health issued....	228	203	431

[1] Borrowed from U. S. Navy at Balboa, returned at Cristobal.

ALL VESSELS ENTERING AND CLEARING PORTS.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	429	2,819,827	1,763,046	392	2,530,411	1,582,929
Vessels entering port but not transiting Canal	52	317,227	198,843	8	47,369	31,121
Vessels transiting Canal and handling passengers and cargo at terminals	72	452,934	285,552	83	521,520	302,459
Ships clearing.						
All vessels, including those transiting Canal	430	2,829,555	1,768,566	393	2,535,047	1,585,189
Vessels entering port but not transiting Canal	52	320,990	201,850	8	47,369	31,121
Vessels transiting Canal and handling passengers and cargo at terminals	72	452,154	284,685	82	514,525	298,176

MOVEMENTS OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
Disembarking:						
From Atlantic ports	921	1,177	2,098	41	28	69
From Pacific ports	167	173	340	224	213	437
Total disembarking	1,088	1,350	2,438	265	241	506
Embarking:						
For Atlantic ports	1,278	1,098	2,376	42	14	56
For Pacific ports	150	60	210	63	22	85
Total embarking	1,428	1,158	2,586	105	36	141
Remaining on board vessels:						
From Atlantic to Pacific ports	704	2,131	2,835	894	2,909	3,803
From Pacific to Atlantic ports	1,129	1,958	3,087	1,234	1,293	2,527
From Atlantic to Atlantic ports	391	95	486	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	24	364	388
Total remaining on board	2,224	4,184	6,408	2,152	4,566	6,718
Total arriving	3,312	5,534	8,846	2,417	4,807	7,224
Total departing	3,652	5,342	8,994	2,257	4,602	6,859

COMMISSARY SALES TO VESSELS.

Following is a statement of commissary sales to all vessels during the month of June, 1924:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Government vessels	$155.03	$65.79	$1,299.08	$130.19	$206.20	$1,856.29
Panama Railroad vessels	76.95	.63	1,704.66	739.11	519.88	3,041.23
Other commercial	1,686.13	5,415.36	17,121.64	179.74	1,626.45	26,029.32
Total sales, June, 1924	1,918.11	5,481.78	20,125.38	1,049.04	2,352.53	30,926.84
Total sales, June, 1923	1,490.37	8,075 31	20,191.90	.....	2,392.92	32,150.50
Total sales, June, 1922	1,240.15	4,274.38	38,653.53	355.54	4,085.25	48,608.85
Sales at Balboa to:						
Government vessels	291.60	729.23	7,205.66	4.34	16.50	8,247.33
Other commercial vessels	662.81	2,293.75	7,297.97	188 54	4,227 77	14,670.84
Total sales, June, 1924	954.41	3,022.98	14,503.63	192.88	4,244 27	22,918.17
Total sales, June, 1923	840.45	4,832.30	19,513 22	884 46	6,630.83	32,701.26
Total sales, June, 1922	361.81	2,913.61	12,244.98	1,454 18	800 44	17,775.02

The aggregate sales to government vessels during the month was $10,103.62, to Panama Railroad vessels, $3,041.23, and to other commercial vessels, $40,700.16, making the total sales to all vessels $53,845.01.

LOCK OPERATION.

The following tabulations show the number of lockages and number of vessels passing through the locks during the month of June, 1924, as compared with the corresponding month in 1923 and 1922; and the consumption of water for lockages in June, 1924:

Locks.	NUMBER OF LOCKAGES.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	June, 1924.	June, 1923.	June, 1922.
Gatun	183	184	367	7	2	9	376	413	243
Pedro Miguel	184	192	376	8	12	20	396	425	253
Miraflores	184	192	376	8	9	17	393	427	254
	Number of vessels put through locks.								
Gatun	186	196	382	19	11	30	412	475	282
Pedro Miguel	184	195	379	24	24	48	427	484	279
Miraflores	184	195	379	25	23	48	427	486	278

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	13	15	16
Panama Canal equipment	17	33	32

The total consumption of water for lockages, maintenance, and loss in leakage was as follows:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,506,790,000	1,229,060,000	1,184,770,000
Leakage	20,000,000	13,300,000	20,000,000

METEOROLOGY AND HYDROGRAPHY.

In the following tabulation the meteorological and hydrographic conditions over the Canal Zone and vicinity during the month of June, 1924, are shown in comparative form:

Rainfall for month.	June, 1924.	June, 1923.	June—Years of record.		
			Maximum.	Minimum.	Mean.
	Inches.	*Inches.*	*Inches.*	*Inches.*	*Inches.*
Pacific section	7.93	8.01	13.26	4.18	8.21
Central section	9.85	15.09	15.09	6.90	10.67
Atlantic section	15.82	13.24	17.49	8.99	13.78
Maximum recorded on any one day	3.51	4.20	[1] 12.25	.....	.....
Gatun Lake watershed	12.11	12.96	15.16	7.89	11.54
Chagres River watershed above Alhajuela	15.79	14.02	18.02	7.47	13.35
Maximum recorded for month at any one point	19.26	18.62	22.00	.....	.....
Minimum recorded for month at any one point	6.27	5.59	.....	2.37	.....
Hydrography.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	2,669	2,159	4,870	1,363	2,547
Maximum momentary discharge for the month	17,400	18,921	[2] 60,200	.....	.....
Gatun Lake watershed, total yield	7,520	6,655	7,895	4,477	6,321
Gatun Lake watershed, net yield	7,094	6,193	7,176	4,081	5,826
Draft on Gatun Lake for lockages and power	2,600	2,532	2,600	[3] 1,138	[3] 1,932

[1] This represents the maximum 24-hour rainfall recorded on the Canal Zone and immediate vicinity since American occupation. Recorded at Gatun on October 23 and 24, 1923. (NOTE—Extreme outlying stations in the Republic of Panama not included in this report.) [2] June 14, 1909. [3] Not including June, 1914.

SEISMOLOGY.

Four seismic disturbances were recorded during the month, two on the 3d, one on the 22d, and one on the 25th. Those on the 3d were of local origin, while those of the 22d and 25th had distant epicenters.

ELECTRICAL POWER AND WORK.

The gross output of the Gatun hydroelectric station and of the Miraflores steam plant, the power distributed to consumers, the loss of power in transmission, etc., as compared with the corresponding month in 1923 and 1922, are shown in the following tabulation:

Item.	June, 1924.	June, 1923.	June, 1922.
Gross output, KWH:			
Gatun hydroelectric station	5,288,900	4,434,000	4,243,800
Miraflores steam plant	290	70	2,140
Power distributed to consumers.....KWH..	4,055,720	3,846,701	3,592,053
Loss of power in plants, accessories, transmissions, and transformers.....KWH..	1,233,470	587,369	654,887
Per cent of loss of power to gross output	23.32	13.24	15.42
Water consumption.....cubic feet..	4,002,575,776	3,564,793,744	3,425,116,580
Oil consumption.....barrels..	320.93	851.13	1,980

In addition to the usual operation, maintenance, and repair work, additions to or repairs of electrical installations were made on 27 vessels during the month.

There were 287 work orders issued during the month for work performed by the different sections of the Electrical Division, as compared with 280 work orders for the month of May, 1924.

SHOP, FOUNDRY, AND DRY DOCK WORK.

During the month miscellaneous repairs were made on 57 vessels at Cristobal, and 49 at Balboa. Of these, 12 were in dry dock at Cristobal, and 11 at Balboa. The more important work included the following:

The steamship *Acajutla* was dry docked, cleaned, and painted. General repairs were made to boilers and auxiliaries.

A rush repair to the boilers on the steamship *El Kantara* was effected. All tubes in three double-end boilers were rolled or electric welded, and other miscellaneous repairs were performed.

Extensive repairs to the machinery and deck structures of the Army tug *George W. Getty* were begun, as well as the fabrication of an elevated steel tank for Fort Sherman, and the making of gas storage bags for the Army.

During the month manufacture was begun on a large quantity of diverse spare parts for use in an overhaul of the Pacific Locks, similar to that carried out on the Atlantic Locks early in 1924.

Templates were gotten out for the construction of three steel dump scows for The Panama Canal. One new baggage car for the Panama Railroad was completed.

The output of the foundry in patterns and castings, as compared with the preceding month was as follows:

	June, 1924.			May, 1924.		
	Patterns.	Castings.	Pounds.	Patterns.	Castings.	Pounds.
Iron	8	471	28,753½	6	276	43,214
Steel	3	422	78,730	3	232	61,488
Nonferrous	13	1,901	10,894	11	657	8,839

There were 546 job orders on hand at the beginning of the month, 657 were authorized during the month, and 674 were completed during the month, leaving 529 on hand at the close of the month.

There were 367 standing orders on hand at the beginning of the month, two were authorized during the month, and one completed, leaving 368 on hand at the close of the month.

MUNICIPAL ENGINEERING.

The output of the 3 filtration plants, the amount of water consumed by the cities of Colon and Panama, and the sales of water to vessels, are shown in comparative form in the following tabulation:

	June, 1924.	June, 1923.	June, 1922.
	Gallons.	*Gallons.*	*Gallons.*
Pumping stations	601,564,250	636,779,750	618,618,000
Filtration plants	364,403,000	378,763,000	363,414,000
Water consumed by Panama	93,420,000	87,558,000	82,039,000
Water consumed by Colon	51,966,000	50,512,000	59,893,500
Sales of water to vessels	9,389,287½	10,205,380	9,299,864

DREDGING.

All slides were quiescent during the month of June, 1924, with the exception of Cartagena, West Lirio, and West Culebra. Cartagena slide, which occurred at the foot of Cartagena Hill, in September, 1923, between stations 1909–50 and 1911–00, and which finally pushed out in the channel a maximum of 50 feet, was buoyed to safeguard navigation, but was not removed at once although a bad turn for shipping was caused as a consequence, for the reason that it was found necessary to maintain the road paralleling the Canal to the military camps on the west side, and which had partially given way, until it could be relocated behind Cartagena Hill. This was accomplished in May, 1924, and work on the slide removal was started on the 26th of June. The road and loose material adjacent to it slid into the Canal immediately work was started. On the 30th of June normal conditions at this point were practically restored.

The movement of West Lirio slide diminished in extent and activity. The dipper dredge *Paraiso*, and suction dredge *No. 86* removed 86,500 cubic yards of material during the month, making the total yardage removed from the slide since October 28, 1923, 1,203,650 cubic yards.

West Culebra slide has shown a slight general movement between stations 1774 and 1795.

There was no interference with Canal traffic during the month.

The total excavation during the month was 304,750 cubic yards, as follows:

Cubic Yards.	Classified as—		Character of work.	Station.	Equipment.
	Earth.	Rock.			
50,400	.....	50,400	Maintenance.....	Gaillard Cut, La Pita point improvement project.	*Paraiso.*
33,100	6,150	26,950	Maintenance.....	Gaillard Cut, West Lirio slide.....	*Paraiso.*
23,800	2,800	21,000	Maintenance.....	Gaillard Cut, Cartagena slide.....	*Paraiso.*
61,600	61,600	.....	Maintenance.....	Gaillard Cut, Bas Obispo reach.....	*No.* 86.
7,800	7,800	.....	Maintenance.....	Gaillard Cut, Culebra reach.....	*No.* 86.
53,400	53,400	.....	Maintenance.....	Gaillard Cut, West Lirio slide.....	*No.* 86.
74,650	71,000	3,650	Aux. maintenance....	Balboa inner harbor.....	*Cascadas.*

SCHOOLS.

The school year terminated June 30, 1924. There were 27 graduates from the high schools, 14 from Balboa, and 13 from Cristobal. Of the 80 American teachers, 17 resigned at the close of the school year, and the remaining teachers were granted 92 days leave of absence without pay.

The following brief summary shows the enrollment, average attendance, etc., in the white and colored schools of the Canal Zone for the month of June, 1924, as compared with June, 1923:

	White.		Colored.		Total.	
	1924.	1923.	1924.	1923.	1924.	1923.
Gross enrollment.....	2,280	1,911	1,963	2,601	4,243	4,512
Net enrollment.....	2,091	1,755	1,906	2,009	3,997	3,764
Average daily attendance.....	1,708.05	1,386	1,510	1,497.9	3,218.5	2,883.9
Pupils neither absent nor tardy.....	984	785	726	593	1,769	1,378
Number of cases of tardiness.....	384	183	48	132	432	315
Number of teachers.....	80	75	42	39	122	114

VITAL STATISTICS.

A total of 155 deaths occurred during the month of June, 1924, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.87 per thousand. The leading causes of death were: Pneumonia (broncho and lobar), 26; tuberculosis (various organs), 25; organic diseases of the heart, 11; nephritis (acute and chronic), 11; diarrhea and enteritis (including colitis), 9. There were 5 deaths from bronchitis, 5 from apoplexy, 4 from cancer (various organs), and 2 from diphtheria. Of the total deaths, 52, or 34 per cent occurred among children under 5 years of age. There were 17 deaths among nonresidents of the Isthmus; these are not included in the above statistics.

There were 282 live births reported during the month, and 16 stillbirths. Including stillbirths, this is equivalent to an annual birth rate of 28.60 per 1,000 population. Deaths among children under one year of age numbered 36, giving an infant mortality rate of 127.66 per 1,000 live births.

The total of malaria cases reported during the month was 256. Of these, 10 were reported from Panama City, 3 from Colon, 202 from Canal Zone sanitated areas, and

41 originated outside of our sanitated areas. Of the total, 24 were employees, 59 were nonemployees, and 173 were Army and Navy personnel. There was one death from malaria.

OCCUPANTS OF QUARTERS.

The number of persons occupying Panama Canal and Panama Railroad quarters are shown in the following table as compared with June, 1923, and June, 1922:

	As of June 30, 1924.			Comparative totals.		
	Men.	Women.	Children.	June, 1924.	June, 1923.	June, 1922.
Americans	2,476	1,997	2,187	6,660	6,339	5,833
Europeans	79	29	69	177	162	225
West Indians	4,217	2,672	6,676	13,565	12,864	12,178
Totals, June, 1924	6,772	4,698	8,923	20,402	.....	.....
Totals, June, 1923	6,474	4,619	8,272	.....	19,365	.....
Totals, June, 1922	6,250	4,361	7,625	.....	.....	18,236

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of June 18, 1924, as compared with May, 1924 and June, 1923:

	As of June 18, 1924.			Total employees.	
	Gold.	Silver.	Total.	May, 1924.	June, 1923.
Operation and Maintenance:					
Office	38	38	76	66	75
Electrical	160	172	332	342	296
Municipal Engineering	72	495	567	593	558
Lock Operation	203	589	792	810	749
Dredging	159	872	1,031	1,040	1,038
Mechanical	427	822	1,249	1,169	1,001
Marine	175	520	695	725	628
Fortifications	11	18	29	34	183
Totals	1,245	3,526	4,771	4,779	4,528
Supply Department:					
Quartermaster	168	1,169	1,337	1,271	1,104
Subsistence	7	82	89	91	86
Commissary	188	832	1,020	1,009	930
Cattle Industry, plantations	5	156	161	163	211
Hotel Washington	7	87	94	97	91
Transportation	36	161	197	197	193
Totals	411	2,487	2,898	2,828	2,615
Accounting Department	197	7	204	202	190
Health Department	231	702	933	959	914
Executive Department	477	249	726	759	740
Totals	905	958	1,863	1,920	1,844
Panama Railroad:					
Superintendent	48	230	278	254	301
Transportation	64	101	165	168	172
Receiving and Forwarding Agent	75	891	966	868	1,002
Coaling stations	62	508	570	497	539
Totals	249	1,730	1,979	1,787	2,014
Grand totals, June, 1924	2,810	8,701	11,511	.....	.....
Grand totals, May, 1924	2,804	8,510	.....	11,314	.....
Grand totals, June, 1923	2,583	8,418	.....	.....	11,001

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The total value of material ordered on United States requisitions and received on the Isthmus, cash sales from stock, etc., during the month as compared with the preceding month, and with the corresponding month in 1923, were as follows:

	June, 1924.	May, 1924.	June, 1923.
Material received on United States requisitions:			
For Department of Operation and Maintenance	$585,452.82	$343,886.15	$268,011.65
For other Panama Canal departments	2,456.91	14,402.30	6,784.70
Totals	587,909.73	358,288.45	274,796.35
Cash sales on the Isthmus:			
Stock	21,999.25	27,739.12	26,079.05
Fuel oil	277.93	348.11	71.40
Scrap	702.42	528.81	594.56
Obsolete and second-hand material	726.12	854.90	41,301.54
Totals	23,705.72	29,470.94	68,046.55

Respectfully,
JAY J. MORROW,
Governor.

Change of Address of Washington Office.

The office of The Panama Canal in Washington, D. C., has been moved from the Old Land Office Building to the Munitions Building, which is at 19th and B Streets NW.

Banana Exports from Cristobal.

In THE PANAMA CANAL RECORD for November 28, 1923, there was published a table showing the exports of bananas from Cristobal, month by month, from January, 1922, to October, 1923, This table has been completed to June, 1924, and is reproduced below:

Month.	1922.	1923.	1924.
	Stems.	*Stems.*	*Stems.*
January	8,217	17,087	47,829
February	9,117	11,304	35,627
March	11,631	24,435	64,874
April	17,223	21,693	51,070
May	23,480	31,185	48,023
June	19,012	39,333	76,850
July	18,051	33,852	.....
August	17,818	45,734	.....
September	17,208	44,593	.....
October	20,319	44,986	.....
November	19,287	42,908	.....
December	26,785	39,951	.....
Totals	208,688	397,061	324,273

Since there is a market for all of the bananas grown in the Canal Zone, with a reasonable prospect that prices will be maintained, nearly all of the agricultural lands bordering on Gatun Lake, which have been leased since December, 1921, have been planted in this crop. Clearing and planting have proceeded rapidly during the past year, and there are many new plantations which are not yet bearing. Production should increase for some time to come.

Examinations for Recorder, Surveyor, and Junior Engineer.

On Saturday, August 2, 1924, promotion examinations will be held in Room 314, Administration Building, Balboa Heights, C. Z., covering the positions of Recorder, Surveyor, and Junior Engineer.

For information concerning these examinations, application should be made to the Assistant Secretary, Local Civil Service Board, Balboa Heights, C. Z. (telephone, Balboa 286).

Tankships Through the Panama Canal During the Fiscal Year, 1924.

During the fiscal year, 1924, 1,704 tank ships transited the Canal. The Panama Canal net tonnage of these 1,704 vessels was 10,212,047; they paid $9,071,835.65 tolls, and carried 10,161,603 tons of cargo. This is 32.6 per cent of the total commercial transits during the year, 39 per cent of the total Panama Canal net tonnage, 37.3 per cent of the total tolls collected, and 37.7 per cent of the total cargo through the Canal during the year. That is, approximately three-eighths of the traffic was in tankers.

In the following tabulation are shown the number of tankships, the Panama Canal net tonnage, tolls collected, and cargo carried for each month of the fiscal year, 1924, segregated by direction and whether laden or ballast, together with totals for the half-year periods, and for the full year:

Month.	Number of vessels.		Panama Canal net.			Tolls.	Tons of cargo.
	Ballast.	Laden.	Ballast.	Laden.	Total.		
Atlantic to Pacific.							
July	82	5	475,092	26,445	501,537	$374,940.25	13,366
August	88	7	518,408	39,679	558,087	414,114.74	68,148
September	65	5	376,760	26,790	403,550	300,127.25	41,023
October	76	7	463,387	37,299	500,686	373,769.67	67,738
November	57	5	329,608	22,608	352,216	262,248.94	38,826
December	76	7	451,717	34,408	486,125	364,080.02	60,107
Totals, half year	444	36	2,614,972	187,229	2,802,201	2,089,280.87	289,208
January	64	2	392,794	12,257	405,051	295,522.96	21,005
February	53	3	328,105	15,075	343,180	256,114.73	27,261
March	60	3	362,100	15,641	377,741	278,288.99	27,281
April	61	5	366,369	26,341	392,710	292,044.65	31,247
May	48	3	295,002	16,215	311,217	228,649.09	28,069
June	48	5	286,573	26,362	312,935	233,757.22	30,714
Totals, half year	334	21	2,030,943	111,891	2,142,834	1,584,377.64	165,577
Totals for year	778	57	4,645,915	299,120	4,945,035	3,673,658.51	454,785
Pacific to Atlantic.							
July	3	81	16,500	482,230	498,730	513,172.70	914,150
August	2	76	9,554	461,714	471,268	493,727.58	886,519
September	2	87	9,554	512,399	521,953	544,243.53	982,297
October	1	70	4,831	420,015	424,846	438,672.42	803,194
November	4	79	17,877	478,359	496,236	514,837.52	908,993
December	2	79	9,554	478,548	488,102	501,747.98	914,957
Totals, half year	14	472	67,870	2,833,265	2,901,135	3,006,401.73	5,410,110
January	2	74	9,269	433,970	443,239	456,899.88	833,768
February	4	60	19,117	371,218	390,335	396,733.64	713,203
March	2	67	9,269	418,096	427,365	442,500.33	790,057
April	2	50	9,554	306,281	315,835	324,023.63	568,339
May	1	69	4,438	412,920	417,358	433,705.31	782,341
June	1	51	4,831	366,914	371,745	337,912.62	609,000
Totals, half year	12	371	56,478	2,309,399	2,365,877	2,391,775.41	4,296,708
Totals for year	26	843	124,348	5,142,664	5,267,012	5,398,177.14	9,706,818
Total, fiscal year, 1924	804	900	4,770,263	5,441,784	10,212,047	9,071,835.65	10,161,603

Shipments of mineral oils in tankships became the most important single item of cargo carried through the Canal from the Pacific to the Atlantic during the opening months of the calendar year, 1923, reaching their peak in September of that year with 1,023,320 tons. From the peak figure of September, 1923, shipments have declined to 639,714 tons for June, 1924, a decrease of nearly 38 per cent.

The total tanker transits for the fiscal year, 1,704, are the same as for the calendar year, 1923, as published in THE PANAMA CANAL RECORD

of January 16, 1924. As the months July to December, 1923, are the last half of the calendar year, 1923, and the first half of the fiscal year, 1924, it means that the months January to June, 1923, the months that marked the beginning of heavy shipments from the southern California oil fields, show the same number of transits as the same months in 1924. The totals for each half year period from the first of January, 1923, to the close of June, 1924, are shown in the following tabulation:

Period.	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
January to June, 1923	738	4,375,985	$3,871,964.81	3,926,400
July to December, 1923	966	5,703,336	5,095,681.60	5,693,318
January to June, 1924	738	4,508,711	3,976,153.05	4,462,285

It will be noted that while the number of transits was the same for the first half of 1924 as for the first half of 1923, the Panama Canal net tonnage, tolls and cargo carried were considerably heavier in 1924 than in 1923.

Of the tankships from the Atlantic to the Pacific during the fiscal year, 1924, nearly 92 per cent were in ballast, and from the Pacific to the Atlantic over 97 per cent were laden.

Large Shipment of Cold Storage for England.

The steamship *Rotorua*, owned and operated by the New Zealand Steamship Co., transited the Canal on July 16, carrying 6,600 tons of cargo from New Zealand ports to London, England. Of this cargo, 4,800 tons were in cold storage, as follows: Five hundred tons of beef, 1,600 tons of mutton, 1,000 tons of butter, 1,300 tons of cheese, and 400 tons of tallow. The remainder of her cargo consisted of 800 tons of wool, and 1,000 tons of general cargo.

The *Rotorua* is a vessel of 12,112 tons registered gross tonnage, 9,439 Panama Canal net tonnage.

Large Cargo of Lumber Through Canal.

The steamship *Lewis Luckenbach* of the Luckenbach lines transited the Canal on July 17, en route from Tacoma, Wash., to New York, carrying as the greater part of her cargo, 7,438,004 board feet, 10,510 tons of lumber. This is claimed to be the largest cargo of lumber ever shipped from the Northwest aboard one vessel, though the steamship *Pomona* of the Weyerhaeuser Timber Co. transited the Canal on March 7, 1924, carrying 10,833 tons of lumber from Everett, Wash., to Baltimore, and again on June 17, 1924, carrying 10,750 tons of lumber over the same route.

The remainder of the cargo of the *Lewis Luckenbach* was 500 tons of copper in bars.

Floating Dry Dock Transits Canal.

The floating dry dock *Valparaiso* arrived at Cristobal on July 13, en route from Rotterdam, Holland, to Valparaiso, Chile. She left Rotterdam on May 15 in charge of two tugs, the *Jacob Van Hemskerck* and the *Groningen*, called at Madeira and Barbados, and was approximately 60 days to Cristobal, having encountered two days very rough weather in the Bay of Biscay.

On July 15, the *Valparaiso* was passed through the Canal, leaving Cristobal at 7 a. m., and arriving at Balboa at 6.51 p. m. This was

the first floating dry dock to make the transit of the Panama Canal. She was passed through the west chambers of all locks on account of pipes and valves projecting from her right side above the water line, which would have interfered with tying up to approach walls if the east chambers had been used.

The *Valparaiso* was built by Burcgerrhout, of Rotterdam, for the Sociedad Astileros de Las Habas of Valparaiso, Chile; is 365 feet long and 85 feet beam; her draft in making the transit of the Canal was 5 feet; and her tonnage was 4,500 tons deadweight. The Canal tolls were calculated on displacement tonnage, at 50 cents per ton. The dry dock is scheduled to arrive at Valparaiso on August 26.

Density of Water in Balboa and Cristobal Harbors.

Place.	Date.	Weight of sea water in ounces per cubic foot.	Average temperature degrees F.	Depth.	Remarks.
				Feet.	
Cristobal (between docks 8 and 9.)	July 14 to 18, incl.	1013 to 1018	84	3	Low tide.
Balboa (dock 18).....	July 11 to 18, incl.	1012 to 1014	82	4 to 7	High and low tide.

(NOTE—The weight of a cubic foot of fresh water at 83. F. is 995 ounces.)

Ships at Canal Repair Shops.

The following vessels were at the Cristobal shops for repairs during the two weeks ended July 21:

Steamships *Hampton Roads*, L. P. turbine; remove bearings, remetal, bore, and fit; remetal and machine thrust shoes; manufacture new thrust collar; remove L. P. casing of all exhaust fittings; overhaul and set relief valve; renew seals in casing and true up blading. H. P. turbine: Remove thrust shoes and repair; clean bearings, remetal and bore 4 pairs, and install same; raise H. P. turbine casing; blank off all necessary steam piping and lubricating pipes as directed; overhaul throttle valves; repair telemotor tank, blower engine, boiler valves, and ice machine, etc. *Ulysses*, manufacture two castings for piston rings, two scotchmen for towing hawsers, 10 scrapers, two covers for chain pipe castings, and 5 skylight lifters; furnish 12 laborers for chipping and scaling deck and 6 laborers for fire room cleaning; repair suction to forward bilge pump, and bottom of smoke box in starboard forward boiler, etc. U. S. submarine *O–3*, dock, clean, and paint bottom; regrind sea valves and renew zincs as necessary; test and repair all fuel, trim, and ballast tanks; make minor structural repairs to hull and outside steering and diving gear; swing port and starboard crankshafts in lathe, check up alignment of shaft, crankpin, and journals; check propeller pitch and make minor repairs to propellers, stern tubes, and outboard bearings; overhaul main engine clutches and rebabbitt and fit two engine clutch bands; overhaul circulating water, lubricating oil, and high pressure pumps; renew gaskets in all deck openings, guards at openings in superstructure, midships outboard air charging line, 3 plates in superstructure, bitumastic on hull and periscope shears, loop antennae wire and deck where necessary; overhaul quick opening valves and clean and repair air compressors; install rail around periscope shears; manufacture two air compressor cylinder liners and 11 liners for main engine cylinders; align port muffler with starboard, etc. steamship *Cristobal*, repair circulating pump, exhaust pipe in steam deck line, No. 7 side port hinge, pantry press, and kitchen sink; scale iron work in engine room and shaft alleys; complete cement washing afterpeak tank.

Minor repairs—Steamships *Ulua*, *Mafresno*, *Mississippi*, *Ohioan*, *G. Harrison Smith*, *Tulsagas*, *Torhanvan*, *Salvador*, and *Mantaro*, schooner *Laura C. Hall*, tug *Tavernilla*, and launch *Activo*.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete list of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 19, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Mississippi	10	11.25	13	6.25	13	14.15	13	15.15	French	French Line	410.0	52.4	24.3	Havre	Vancouver	General	7,349	7,156	4,984
H. M. Storey [1]	12	17.05	13	6.35	13	13.25	13	14.20	American	Standard Oil Co	500.0	68.2	20.0	New York	Los Angeles	Ballast		11,224	7,849
Sugilleneo	12	19.55	13	7.30	13	14.44	13	16.05	American	Transmarine Corporation	324.0	46.2	22.0	Newark	San Pedro	General	3,250	3,984	2,612
Romagne	12	23.20	13	7.25	13	15.38	13	16.30	American	Lind Navigation Corporation	251.0	43.0	19.0	Baltimore	Seattle	General	3,000	2,651	1,619
William Rockefeller [1]	13	1.50	13	8.38	13	16.28	13	17.35	American	Standard Oil Co	554.9	75.3	22.0	New York	San Pedro	Ballast		14,785	10,313
Commercial Traveler	13	9.20	13	9.40	13	18.15	13	22.10	American	Moore & McCormick & Co	396.0	53.2	24.1	Norfolk	Tiburon	Coal	7,031	5,657	4,247
Canadian Constructor	13	10.50	13	11.10	13	18.45	14	7.50	British	Canadian Govt. Mer. Marine	445.0	56.0	19.0	Montreal	Auckland	General	2,400	7,680	5,494
Eelbeck	13	11.35	13	11.50	13	19.42	14	5.55	American	Barber Line (S. B.)	401.0	54.6	27.0	New York	Manila	General, kerosene	5,648	6,928	5,103
Rio Claro	13	15.23	14	6.18	14	13.30	14	14.45	British	Peterson & Co., Ltd	363.1	53.2	19.0	Philadelphia	Bluff	General	6,544	5,067	3,484
Apple Branch	13	18.20	14	6.35	14	13.48	14	14.45	British	Nautilus Steamship Co	370.0	51.7	22.6	Cardiff	Guayaquil	General	3,451	5,112	3,511
Hagood [1]	13	21.10	14	7.20	14	14.27	14	15.58	American	Cities Service Refining Co	435.6	56.2	20.0	Philadelphia	San Pedro	Ballast		7,426	5,094
Samuel Q. Brown [1]	14	2.10	14	8.45	14	15.16	14	16.14	American	Tidewater Oil Co	424.4	58.2	20.6	New York	Los Angeles	Ballast		7,333	5,246
Tulsagas [1]	12	10.40	14	9.35	14	16.34	14	17.36	American	McAllister Brothers (S. B.)	431.0	59.2	18.6	New Orleans	Los Angeles	Ballast		7,817	5,049
Utah	13	23.25	14	12.13	14	19.02	14	20.10	British	Harlem Steamship Co	375.2	51.2	24.9	Antwerp	Vancouver	General	6,000	5,296	3,737
Aladdin [1]	14	12.25	14	12.35	14	19.55	14	20.50	American	Standard Transportation Co	435.6	56.2	17.0	New York	San Pedro	Ballast		7,408	5,112
Vanadis [2]	13	19.10	14	13.45	14	20.50	16	19.58	American	C. K. G. Billings	209.1	34.7	15.5	Jacksonville	San Pedro	Ballast		1,271	614
Largo Law	14	20.55	15	6.35	15	13.36	15	14.49	British	Thomas Law & Co	379.0	50.0	21.0	Montreal	Auckland	General	5,527	5,323	3,839
Valparaiso [3]	13	20.00	15	7.05	15	18.51	18	15.10	Dutch	Buregerrhout	365.0	85.0	5.0	Rotterdam	Valparaiso	Ballast			
Groningen [4]	13	20.00	15	7 05	15	18.51	18	15.10	Dutch	Weismuller	139.0	25.0	13.0	Rotterdam	Valparaiso	Towing dry dock		435	94
Jakob Van Hemskerck [4]	13	20.00	15	7.05	15	18.51	18	15.10	Dutch	Weismuller	152.0	29.0	14.0	Rotterdam	Valparaiso	Towing dry dock		573	127
Rappahannock [5]	12	7.55	15	7.10	15	14.56	15	19.30	American	U. S. Navy	471.0¼	59.0¼	21.0	Pensacola	San Diego	Naval stores	1,400		
Sun [1]	15	4.15	15	10.10	15	19.15	16	4.45	American	Sun Oil Co	382.0	49.9	18.6	Jacksonville	San Francisco	Ballast		5,020	3,324
Jason	15	7.35	15	10.45	15	19.48	15	21.06	Dutch	Royal Netherlands W. I. Mail	346.5	48.0	20.3	Antwerp	Corral	General	3,564	4,321	3,120
Governor	15	13.33	15	13.45	15	20.40	15	21.52	British	T. and J. Harrison	410.0	52.6	20.0	Liverpool	Los Angeles	General	2,200	6,683	4,775
Giulia [2]	14	23.40	15	13.35	15	21.40	17	20.25	Panaman	J. McMillan	169.8	24.1	16.0	Habana	Vancouver	Liquors	280	358	241
Drechtdyk [6]	14	15.50	15	14.25	15	21.13	15	22.45	Dutch	Holland-American Line	485.0	62.0	22.8	Rotterdam	Los Angeles	General	5,532	10,793	7,619
Buenos Aires	14	20.40	16	6.08	16	14.19	16	15.15	Spanish	Compania Trasatlantica	410.6	48.2	22.6	Barcelona	Valparaiso	(7)	330	5,624	3,844
Chile Maru	15	14.25	16	6.25	16	15.38	16	16.55	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	New York	Osaka	(8)	6,992	5,923	4,409
Hector	15	7.48	16	6.28	16	15.02	16	22.12	Dutch	Royal Netherlands W. I. Mail	322.3	44.0	22.0	Hamburg	Valparaiso	General	3,811	3,677	2,686
Hororata	15	21.35	16	7.05	16	15.30	16	16.25	British	New Zealand Shipping Co	511.0	64.0	28.0	London	Brisbane	General	5,153	12,623	8,763
Walter A. Luckenbach	15	22.05	16	7.20	16	16.30	16	17.20	American	Luckenbach Line	446.0	56.1	25.0	Boston	Seattle	General	4,146	8,785	6,567
Charles Pratt [1]	14	20.33	16	8.30	16	16.37	16	17.20	American	Standard Oil Co	500.0	68.0	16.6	Tampico	Los Angeles	Ballast		10,313	7,492

[1] Tanker. [2] Yacht. [3] Dry dock. [4] Tug. [5] Supply ship. [6] Motor ship. [7] Wine, preserves, sandals, and texture. [8] Phosphate, rosin, and general.

Inverbank [9]	16	7.20	16	9.44	16	17.14	16	21.35	British	Bank Line, Ltd	420.4	53.9	25.0	Baltimore	Hongkong	General	7,612	7,090	5,003
Albaro	14	12.48	16	11.05	16	18.29	16	19.30	Italian	Otto Wolff	323.8	40.8	22.0	Genoa	Valparaiso	General	1,755	3,039	2,090
Plum Branch	16	13.20	16	13.30	16	19.45	16	21.45	British	Nautilus Steamship Co	398.5	53.8	19.0	Glasgow	Valparaiso	General	2,583	5,761	3,881
Santa Luisa	16	21.50	17	6.25	17	13.05	17	16.35	American	Grace Line	360.2	51.6	23.8	New York	Telcahuano	General	2,499	5,694	3,975
New Jersey [1]	16	16.22	17	7.05	17	14.13	17	15.15	American	Texas Co	416.8	56.0	19.6	Philadelphia	San Pedro	Ballast		7,130	5,240
Eagle	17	4.55	17	8.25	17	15.32	17	20.10	American	United American Lines	410.0	56.0	18.6	Baltimore	Seattle	General	2,466	8,243	6,266
Torhamvan	15	20.20	17	8.30	17	16.22	17	17.30	British	Kirkwood Line, Ltd	251.0	43.0	17.5	Montreal	Vancouver	General	1,800	2,629	1,671
Margaret Dollar	17	6.35	17	9.32	17	17.06	17	18.10	American	Dollar Line	429.0	55.2	17.4	Baltimore	San Francisco	General	2,602	7,579	5,527
Scottish Castle [1]	17	10.45	17	13.37	17	20.24	17	21.34	British	Anglo-Saxon Petroleum Co	440.8	57.4	19.6	London	San Pedro	Ballast		7,532	5,162
Ruahine	17	19.13	18	6.18	18	13.25	18	22.04	British	New Zealand Shipping Co	480.6	60.3	26.3	London	Wellington	General	5,106	11,292	8,266
Agwimex [1]	17	15.15	18	6.25	18	15.06	18	16.10	American	Atl. Gulf & W. I. S. S. Co	480.5	66.0	21.0	Boston	San Pedro	Ballast		9,394	6,306
President Monroe	18	6.05	18	7.28	18	16.07	19	0.24	American	Dollar Line	502.1	62.2	26.1	New York	San Francisco	General	2,256	12,023	8,495
Minnesotan	18	2.20	18	7.35	18	15.18	18	20.34	American	American-Hawaiian Line	407.0	53.7	20.6	New York	Seattle	General	3,956	7,150	4,913
Tremere	18	3.20	18	8.35	18	16.26	18	17.25	British	Hain Steamship Co	475.6	60.9	23.10	New York	Bluff	Case oil, general	6,635	8,946	6,145
St. Mihiel [10]	18	8.42	18	9.10	18	16.51	19	1.37	American	U. S. Army	448.0	58.0	24.0	New York	San Francisco	Q. M. supplies	2,000	8,522	5,327
Salvador	6	18.10	18	9.48	18	17.09	18	20.54	British	Pacific Steam Navigation Co	215.0	35.4	15.11	Cristobal	Champerico	General	1,100	1,270	735
Darien [11]	11	12.05	18	9.55	18	12.28			American	Panama Railroad Steamship Line	335.0	52.0	12.5	Norfolk	Gatun Lake	Ballast		4,290	3,638
El Monticello	14	1.30	19	6.21	19	14.12	19	15.35	Spanish	C. G. Navigacion	330.0	48.10	12.0	Aviles	Iquique	Ballast		3,645	2,533
Mantaro	17	18.30	19	6.15	19	13.26	19	15.40	Peruvian	Peruvian Line	367.3	46.0	19.2	Covenas	Callao	Gen. and cattle	510	4,838	2,959
Tuxpanoil [1]	19	1.25	19	6.53	19	15.14	19	16.10	American	McAllister Brothers (S. B.)	431.0	59.2	21.0	Baltimore	San Pedro	Ballast		7,862	5,049
Chickasaw City	19	13.20	19	13.30	19	20.34	19	21.45	American	Isthmian Line	411.6	55.0	24.0	New York	Seattle	General, steel	7,413	7,322	5,237

[1] Tanker. [9] Motor ship. [10] Transport. [11] Barge.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Venezuela	12	1.00	13	6.24	13	13.31	14	0.05	American	Pacific Mail Steamship Co	380.0	48.7	18.6	San Francisco	New York	General mdse	2,378	6,033	4,353
Mount Carroll	12	17.40	13	7.13	13	14.45	13	14.45	American	United American Line	440.3	57.2	23.0	San Francisco	New York	General	3,890	8,095	5,655
Horace Luckenbach	13	5.30	13	9.04	13	16.00	13	17.05	American	Luckenbach Line	445.0	58.0	25.0	Portland	Boston	General	7,357	8,626	6,290
Valdemar Skogland	13	12.25	13	13.14	13	21.05	13	21.05	Norwegian	T. H. Skogland & Co	362.7	51.4	20.0	Cebu & Manila	New Orleans	Copra, hemp	4,032	5,315	3,838
Evelyn	13	13.00	13	13.53	13	22.38	14	14.15	American	Grace Line	313.6	46.1	19.6	Pacasmayo	New York	[13]	4,124	3,615	2,560
Huanchaco	13	21.45	14	7.24	14	15.05	15	10.05	British	Pacific Steam Navigation Co	390.6	50.2	24.1	Punta Arenas	Antwerp	General	5,321	5,885	4,252
Maple Branch	14	6.30	14	8.06	14	16.40	14	18.20	British	Nautilus Steamship Co	400.0	52.0	22.11	Coronel	Liverpool	General, nitrate	6,538	5,618	4,116
Jan Van Nassau	14	7.00	14	8.55	14	17.15	14	20.30	Dutch	Kon. Ned. Stoomb. Maatsch	362.9	44.7	22.3	Taltal	Delfzyl, Hol	Nitrate of soda	4,094	3,819	2,632
Norlina	14	20.05	15	6.13	15	13.55	15	13.55	American	Garland Steamship Co	385.0	51.0	23.0	Grays Harbor	Philadelphia	Lumber, hemp	6,200	5,466	4,181
Virginian	15	1.00	15	7.08	15	14.45	15	14.45	American	American-Hawaiian Line	491.5	53.2	25.6	Seattle	Boston	General	6,000	10,491	7,546
R-26 [12]			15	7.06	15	14.45			American	U. S. Navy				Balboa	Cristobal	Ballast			
Oregon Maru	15	6.14	15	11.19	15	18.25	15	18.25	Japanese	Kawasaki Losensho	385.0	51.0	27.1	Portland, Oreg	Dublin	Wheat	7,675	6,251	4,700
Santa Malta	15	11.32	15	12.24	15	20.10	15	20.10	American	Pacific Mail Steamship Co	404.5	53.7	15.6	San Francisco	Baltimore	Ballast		6,766	4,809
William G. Warden [1]	15	12.40	15	13.25	15	22.30	15	22.30	American	Standard Oil Co	516.0	68.0	30.6	San Pedro	New York	Crude oil	15,200	10,524	7,600
San Gregorio [1]	15	14.10	15	14.58	15	23.25	15	23.25	British	Anglo-Mexican Petroleum Co	527.0	66.6	29.6	San Pedro	Tampico, Mex	Crude petroleum	15,707	12,136	9,063
Marore	15	23.15	16	5.57	16	17.20	16	17.20	American	Ore Steamship Corporation	550.3	72.2	35.0	Cruz Grande	New York	Iron ore	19,500	15,551	4,297
Willet & barge	14	9.00	16	6.57	16	14.45	16	14.35	American	Merritt, Chapman & Scott Corp	181.6	35.5	15.0	Cano Island	Kingston			809	223
Robin Goodfellow	15	16.00	16	7.07	16	15.55	16	15.55	American	Seas Shipping Co	424.0	55.0	24.6	Seattle	Boston	General, lumber	6,291	7,473	55,36

[1] Tanker. [12] Submarine. [13] Nitrate, copper, ivory nuts, and coconuts.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Bradford City	15	16.50	16	7.37	16	17.20	16	18.30	British	Wm. Reardon Smith & Sons, Ltd	400.0	52.5	26.0	Vanconver	Norfolk	Wheat	7,493	5,805	4,077
San Ubaldo [1]	15	18.30	16	8.05	16	18.27	16	23.30	British	Eagle Oil Transport Co	412.0	53.4	25.6	San Pedro	London	Gasoline	7,602	5,976	4,069
Robert E. Hopkins [1]	15	17.10	16	8.41	16	18.20	16	18.20	American	Tidewater Oil Co	424.0	58.2	26.6	San Pedro	New York	Crude oil	10,135	7,333	5,244
Nordhavet	16	4.30	16	9.19	16	19.40	19	23.10	Danish	Northern Steamship Co	320.3	44.3	21.6	Antofagasta	New York	General	5,075	3,720	2,637
Rotorua	16	9.30	17	6.25	17	12.58	17	12.58	British	New Zealand Shipping Co	530.0	61.4	24.0	Auckland	London	Frozen, general	6,600	12,846	9,439
Nordlys	16	23.30	17	7.24	17	14.42	17	14.42	Danish	Wessel, Duval & Co	362.0	51.0	23.9	Iquique	Jacksonville	Nitrate	6,336	4,932	3,468
Lewis Luckenbach	17	1.05	17	8.12	17	15.55	17	15.55	American	Luckenbach Line	496.0	68.2	29.6	Tacoma	New York	Lumber	11,010	11,487	8,762
Mineola	17	1.06	17	9.11	17	17.05	17	17.05	American	N. O. & S. A. S. S. Co	298.6	40.0	22.0	Talcahuano	New Orleans	Nitrate of soda	3,505	2,835	1,805
Patrician	17	6.30	17	10.07	17	18.30	17	22.35	British	T. and J. Harrison	423.0	56.0	24.0	Tacoma	Liverpool	General	8,113	6,353	4,598
Relief [14]	14	9.15	17	10.34	17	17.05	17	17.05	American	Merritt, Chapman, & Scott Corp	184.6	30.3	16.0	Cano Island	Jamaica	Ballast		911	327
Isis [15]	17	9.30	17	11.09	17	18.39	17	22.23	German	United American Line	392.9	57.6	24.0	Seattle	Hamburg	General	5,845	5,788	4,027
Stanley Dollar	17	12.30	17	13.29	17	20.44	18	6.25	American	Dollar Line	401.4	54.0	24.0	Vancouver	Baltimore	Lumber, general	6,500	6,971	5,078
Agwibay [1]	17	13.30	17	14.53	17	22.45	17	22.45	American	International Shipping Co	468.3	62.7	29.0	San Pedro	New York	Crude oil	12,000	9,776	6,903
Orcoma	17	12.35	18	6.15	18	13.40	18	17.20	British	Pacific Steam Navigation Co	528.0	62.0	27.6	Coronel	Liverpool	General	5,162	12,414	8,302
Calgarolite [1]	17	15.00	18	7.23	18	14.40	18	14.40	British	Imperial Oil Co	463.3	60.2	26.0	Talara, Peru	Bayonne, N.J.	Crude naphtha	11,700	8,491	6,060
Edgar F. Luckenbach	17	16.45	18	7.36	18	14.50	18	14.50	American	Luckenbach Line	525.0	53.7	21.0	Portland	Mobile	General	2,108	8,568	6,565
Killerig [14]	13	10.15	18	7.45	18	14.35	18	16.43	British	Lidnsay, Hunter & Swan	172.0	30.0	12.0	Bahia	Kingston	Ballast		575	176
Cecil County [1]	17	16.40	18	8.25	18	16.00	18	16.00	American	Walker & Daly	431.0	59.2	26.0	San Pedro	New York	Crude oil	9,571	8,097	5,330
Yorba Linda [1]	17	17.15	18	8.50	18	16.35	18	16.35	American	General Petroleum Co	435.0	56.2	26.6	Los Angeles	Thames Haven	Gasoline (bulk)	9,300	7,424	5,077
Teno	18	4.20	18	9.35	18	17.25	18	21.08	Chilean	United Fruit Co	421.8	56.0	26.10	Valparaiso	New York	General	4,878	7,750	4,672
Hellen	18	6.00	18	9.47	18	18.30	18	20.30	Norwegian	Bruusgaard Kiosternds & Co	400.0	52.0	24.10	Vancouver	Gibraltar	Wheat	6,669	5,730	4,011
David McKelvy [1]	17	23.00	18	10.54	18	18.50	19	1.50	American	Tidewater Oil Co	430.0	59.0	27.0	Los Angeles	New York	Crude oil	11,000	7,629	5,393
Cleveland [16]	18	6.15	18	12.25	18	20.50	.....	.....	American	U. S. Navy	307.0	45.0	.....	High seas	Cristobal	Ballast	.....	.....	.....
Duendes	18	17.15	19	7.12	19	15.25	19	16.45	British	Pacific Steam Navigation Co	390.0	50.0	25.0	Talcahuano	Liverpool	([17])	5,458	6,005	4,287
Benefactor	18	22.15	19	8.09	19	17.10	19	20.35	British	Thos. and James Harrison	410.7	52.2	25.3	Vancouver	London	([18])	7,024	6,314	4,322
Benmacdhui	18	22.37	19	9.08	19	17.30	19	19.05	British	Ben Line, Ltd	401.0	52.1	27.9	Portland	Dublin	Wheat	8,157	6,562	4,749
Santa Barbara	19	6.35	19	10.11	19	17.30	19	17.30	American	Pacific Mail Steamship Co	404.6	53.9	21.3	San Francisco	New York	General	3,595	6,789	4,746
Canada [15]	19	2.00	19	11.35	19	18.45	19	22.55	Swedish	Johnson Line	440.0	55.0	27.7	Vancouver	Stockholm	General	7,892	7,575	5,456
Alameda [1]	19	11.30	19	12.44	19	19.55	19	19.55	American	United American Lines	430.0	58.2	26.0	San Pedro	New York	Crude petroleum	9,800	7,425	5,097
Cape Henlopen [1]	17	18.15	19	13.48	19	21.23	19	22.45	American	Cape Steamship Co	434.8	56.2	26.6	San Pedro	New York	Crude oil	10,454	7,435	5,205

[1] Tanker. [14] Tug. [15] Motor ship. [16] Cruiser. [17] Nitrate, sugar, cotton, etc. [18] Lumber, lead, barley, canned salmon.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

(Continued on page 730, column 2.)

List of Consular Officials Accredited to the Canal Zone, who have been Officially Recognized by the United States Government.

Country.	Name.	Official capacity.	Date recognized.
Chile	Carlos Edwards Vives	Consul	April 16, 1923.
Chile	Juan Antonio Rios	Consul General	December 20, 1922.
Dominican Republic	Mauricio Benjamin Fidanque	Honorary Consul	March 7, 1922.
Finland	Ramon Arias Feraud, Jr	Consul	August 5, 1921.
Haiti	Hilario V. Seixas [1]	Consul	December 16, 1918.
Japan	Kisaku Ichikawa	Consul	September 20, 1922.
Nicaragua	Marcos E. Velasquez	Consul General	June 21, 1921.
Norway	David Smith Webster	Consul	May 9, 1922.
Norway	Thomas H. Jacome	Vice Consul	December 27, 1921.
Peru	Guillermo Espantoso (absent)	Consul General	July 22, 1921.
Peru	Julio Piedra C	Acting Consul General.	
Portugal	Jose Agustin Arango	Consul	June 25, 1921.
Spain	Luis San Simon [1]	Honorary Vice Consul	April 15, 1924.
Spain	Francisco Andrade Polanco [1]	Honorary Vice Consul	April 15, 1924.
Sweden	Rudolf Bierman de St. Malo	Consul	January 17, 1923.
Sweden	Johannes Julius Ecker, Sr	Consul	September 5, 1923.
Venezuela	Carlos Elias Villanueva	Consul General	December 18, 1923.

[1] Provisionally recognized.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending July 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Venezuela	Pacific Mail Steamship Co	July 13	July 13	578	125
Cartago	United Fruit Co	July 13		178	166
Ulua	United Fruit Co	July 13	July 13	12	296
Evelyn	Grace Line	July 13	July 14	302	52
Utah	French Line	July 13	July 14	60	32
Samuel Q. Brown	Tidewater Oil Co	July 14	July 16	13,000	[2]
Buenos Aires	Spanish Line	July 14	July 16	246	[2]
Albaro	Otto Wolff	July 14	July 16	7	[2]
Drechtdijk	Holland-American Line	July 14	July 15	285	482
Huanchaco	Pacific Steam Navigation Co	July 14	July 15	409	49
Abangarez	United Fruit Co	July 15	July 17	730	88
Hector	Royal Netherlands W. I. Mail	July 15	July 16	250	120
Van Renselaer	Royal Netherlands W. I. Mail	July 15	July 16	386	½
Toloa	United Fruit Co	July 15	July 16	125	1½
Cartago	United Fruit Co	July 16	July 16	½	4
Santa Marta	United Fruit Co	July 16	July 17	105	153
Perou	French Line	July 16	July 19	95	545
Carrillo	United Fruit Co	July 17	July 17	[3]	381
Camden	United Fruit Co	July 17	July 18	8,969	[2]
Mantaro	Peruvian Line		July 19		530
Teno	Chilean Line	July 18	July 18	17	[2]
Van Renselaer	Royal Netherlands W. I. Mail	July 18	July 19	12	205
Orcoma	Pacific Steam Navigation Co	July 18	July 18	[1]	22
Salvador	Pacific Steam Navigation Co		July 18		1,132
Santa Paula	Pacific Mail Steamship Line	July 19		400	

[1] No cargo discharged. [2] No cargo laded. [3] 60 pounds.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 19, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Relief	Merritt & Chapman Wrecking Co.	July 14	July 17		[3] 7½
Teno	Chilean Line	July 18	July 18	16	
Atrato	Colombian Transport Co	July 18	July 20	38	
Salvador	Pacific Steam Navigation Co	July 18	July 18		15

[3] Transit.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations must be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $2.00 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including war ships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution, away from the Isthmus, of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Sale of Surplus Material and Equipment.

The Panama Canal offers for sale, by direct purchase at moderate prices, a quantity of telephones, telephone ringers and bells, bank check writers and protectors, small tools and other miscellaneous articles of general utility. These articles may be inspected at the Obsolete Section of the General Storehouse, Balboa, and purchased through the office of the General Storekeeper. Detailed information with prices may be secured by telephone by calling Balboa No. 120.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 728.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
July 13	Ulua	United Fruit Co.	Port Limon.
July 13	Barranca [21]	N. O. & Bisso Towboat Co.	New Orleans via Trinidad.
July 15	Toloa	United Fruit Co.	New York via Habana.
July 15	Van Renselaer	Royal Netherlands W. I. Mail	Amsterdam via wayports.
July 15	Abangarez	United Fruit Co.	New Orleans via Habana.
July 16	Perou	French Line	Havre via wayports.
July 16	Cartago	United Fruit Co.	Bocas del Toro.
July 16	Baralt	Dutch Line	Curacao.
July 16	Santa Marta	United Fruit Co.	New York via Kingston.
July 17	Carrillo	United Fruit Co.	Colombian ports.
July 17	Camden	United Fruit Co.	Baytown, Tex.
July 18	Van Renselaer	Royal Netherlands W. I. Mail	Port Limon.
July 18	Chateau Thierry [22]	U. S. Army	New York via San Juan.

*DEPARTURES.

Date.	Vessel.	Line.	For—
July 13	Cartago	United Fruit Co.	Bocas del Toro.
July 13	Ulua	United Fruit Co.	New York via Habana.
July 16	Cartago	United Fruit Co.	New Orleans via Habana.
July 14	Van Renselaer	Royal Netherlands W. I. Mail	Port Limon.
July 16	Toloa	United Fruit Co.	Port Limon.
July 17	Ulysses	Panama Railroad Steamship Line	Norfolk.
July 17	Santa Marta	United Fruit Co.	Colombian ports.
July 17	Abangarez	United Fruit Co.	New Orleans via wayports.
July 17	Carrillo	United Fruit Co.	New York via Kingston.
July 17	Barranca [21]	N. O. & Bisso Towboat Co.	New Orleans via Port Arthur.
July 18	Hercules [23]		Bocas del Toro.
July 18	Camden	United Fruit Co.	Havre via wayports.
July 19	Perou	French Line	Amsterdam via wayports.
July 19	Van Renselaer	Royal Netherlands W. I. Mail	

[21] Tug. [22] Transport. [23] Dredge, towed by *Barranca*.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 19	El Chitre	Cerra & Sossa	Panama City.	July 19	El Chitre	Cerra & Sossa	Panama City.

* Other than ships passing through the Canal.

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British Warships Establish New Records for Size of Vessels Through the Canal.

With the passage of the British warships *Hood* and *Repulse* through the Canal on July 23 and 24, new records were established for size of ships and tolls paid for the transit of the Panama Canal. Both of the vessels are larger than any other which has used the Canal to date. The *Hood* is 860 feet 7 inches in length, has a maximum beam of 105 feet 2½ inches, and her displacement tonnage at the time of transit was 44,799 tons. At 50 cents per ton of displacement, the tolls on the *Hood* amounted to $22,399.50. The *Repulse* is 794 feet 2½ inches in length, with a beam of 102 feet 8 inches, and displacement at time of transit was 35,359 tons, requiring tolls of $17,679.50. The draft of the *Hood* was 32 feet and that of the *Repulse* 30 feet.

Previous records were: Length, H. M. S. *Renown*, 795 feet; beam, United States battleships *Mississippi* and *New Mexico*, 97 feet 4½ inches; displacement, H. M. S. *Renown*, 33,379 tons; tolls, steamship *America*, $16,855; draft, steamship *Heffron*, 35 feet 2 inches.

On account of the great beam of the *Hood* and the *Repulse*, their passage through the locks was of especial interest. The width of the lock chambers is 110 feet, which left, in the case of the *Hood*, a clearance of 2 feet 4¾ inches on either side. The usable length of the locks is 1,000 feet, which left approximately 70 feet of clearance fore and aft between the *Hood* and the lock gates. On account of the belts of armor, the greatest beam of the ships was below the water line. Outriggers, consisting of poles attached vertically to booms, were placed on either side, to indicate to the pilot the full beam of the ship, and seamen were stationed opposite the outriggers, with signal flags to signal to the pilot if the vessel should approach closer to the wall than 2 feet. Eight towing locomotives were used, 4 on either side.

The transit of the Canal was handled without incident and apparently without difficulty. The vessels answered the helm extremely well and there was no trouble in entering the locks or in passage through any part of the Canal channel.

The *Hood* and the *Repulse* were followed by the Australian cruiser *Adelaide*, all 3 of them being part of the British Special Service Squadron, which sailed from London on October 27, 1923, proceeding by way of the Cape of Good Hope. On arrival off the Gulf of Panama, 4 of the smaller cruisers in the squadron continued to the south, and will return to England by way of the Strait of Magellan, making calls at South American ports on the way.

On arrival the *Hood* and *Repulse* started through the Canal, proceeding as far as Gaillard Cut on the first day. The *Hood* tied up alongside the upper approach wall of Pedro Miguel Lock on the east side, and the *Repulse* was held in the east chamber of Pedro Miguel Lock, aft of the *Hood*. Both vessels spent the night at Pedro Miguel and made an early start the following morning to complete transit.

Commercial traffic was handled through the west side of Pedro Miguel Lock during the time that the warships occupied the east side.

The *Hood*, *Repulse*, and *Adelaide* completed transit of the Canal early in the afternoon of July 24, and without stopping at Cristobal, cleared for Kingston, Jamaica.

Proportion of United States Intercoastal Traffic to Total Traffic Fiscal Years 1922, 1923, and 1924.

During the fiscal year 1922, there were 555 transits of the Panama Canal by vessels carrying 2,562,527 long tons of cargo between the eastern and western seaboards of the United States, and during the fiscal year 1924, there were 2,338 transits of vessels carrying 13,527,378 long tons of cargo over the same route.

In 1924 there were over four times as many transits of vessels in this trade as in 1922, and these vessels carried over five times as much cargo. The total commercial transits during the fiscal year 1922 were 2,736, of which 555 or 20.29 per cent were of vessels employed in the United States intercoastal traffic. In the fiscal year 1924 there were 5,230 commercial transits, of which 2,338 or 44.70 per cent were of vessels employed in the United States intercoastal traffic.

Cargo shipped through the Canal during the fiscal year 1922 amounted to 10,884,910 tons, of which 2,562,527 tons, or 23.54 per cent, were United States intercoastal; and during the fiscal year 1924 the total cargo was 26,994,710 tons, of which 13,527,378 tons or 50.11 per cent were in the United States intercoastal trade.

The number of transits, United States equivalent net tonnage, Panama Canal net tonnage, tolls, and tons of cargo carried in the intercoastal trade, and in total traffic of United States vessels for the fiscal years 1922, 1923, and 1924, with the percentage of intercoastal to total for each year and for the 3-year period are shown in this tabulation:

Period.	United States intercoastal.	Total traffic of United States vessels.	Per cent of total.
Number of transits.			
Fiscal year ending June 30, 1922	555	2,736	20.29
Fiscal year ending June 30, 1923	1,397	3,967	35.22
Fiscal year ending June 30, 1924	2,338	5,230	44.70
Totals for 3 years	4,290	11,933	35.95
United States equivalent net tonnage.			
Fiscal year ending June 30, 1922	2,234,310	9,201,613	24.28
Fiscal year ending June 30, 1923	6,133,268	14,964,493	40.98
Fiscal year ending June 30, 1924	10,509,286	20,957,233	50.10
Totals for 3 years	18,876,864	45,123,339	41.83
Panama Canal net tonnage.			
Fiscal year ending June 30, 1922	2,782,654	11,417,459	24.37
Fiscal year ending June 30, 1923	7,533,466	18,605,786	40.49
Fiscal year ending June 30, 1924	13,048,557	26,148,878	49.90
Totals for 3 years	23,364,677	56,172,123	41.69
Amount of tolls paid.			
Fiscal year ending June 30, 1922	$2,767,696.40	$11,197,832.41	24.71
Fiscal year ending June 30, 1923	6,945,185.89	17,508,414.85	39.66
Fiscal year ending June 30, 1924	11,895,886.62	24,290,963.54	48.97
Totals for 3 years	21,608,768.91	52,997,210.80	40.77
Tons of cargo carried.			
Fiscal year ending June 30, 1922	2,562,527	10,884,910	23.54
Fiscal year ending June 30, 1923	8,068,553	19,567,875	41.23
Fiscal year ending June 30, 1924	13,527,378	26,994,710	50.11
Totals for 3 years	24,158,458	57,447,495	42.05

From the tabulation it will be seen that United States intercoastal traffic has grown much faster than the total traffic through the Canal. This is largely due to shipments of crude oil from the Southern California oil fields which commenced to be heavy early in the calendar year 1923, and over 90 per cent of which go to the eastern seaboard of the United States. Aside from this factor, however, the intercoastal traffic shows a considerable increase.

Following is a statement of crude oil shipments through the Canal from the Pacific to the Atlantic during the fiscal years 1922, 1923, and 1924, showing the amount originating on the west coast of the United States, and the amount destined to the east coast of the United States:

Period.	Total tons of crude oil through Canal eastbound.	From west coast of United States.	Destined to east coast of United States.
Fiscal year ending June 30, 1922	94,974	32	69,293
Fiscal year ending June 30, 1923	3,928,800	3,689,049	3,288,443
Fiscal year ending June 30, 1924	8,872,540	8,501,010	8,117,761

Panama Canal Traffic during Fiscal Year 1924, by Nationality of Vessels.

Commercial traffic through the Panama Canal during the fiscal year 1924, was the heaviest in the history of the Canal. Increases over the fiscal year 1923, were as follows: Transits, 1,263, or 31.8 per cent; Panama Canal net tonnage, 7,543,093 tons or 40.5 per cent; tolls, $6,782,548.69 or 38.7 per cent; and tons of cargo carried, 7,426,835 or 38 per cent.

Transits of vessels of United States registry during the fiscal year 1924, exceeded those of all other nationalities combined, with vessels of British, Japanese, German, Norwegian, and Dutch registry following in the order named. Vessels of these 6 nationalities made up 89.8 per cent of the total transits of the Canal during the year.

The following statement shows the commercial traffic through the Canal during the fiscal year 1924, segregated according to the registry of the vessels and the totals for the fiscal year 1923:

Nationality.	No. of ships.	United States equivalent.	Panama Canal net tonnage.	Tolls.	Cargo.
British	1,265	4,891,576	6,097,611	$5,814,983.83	6,051,842
Chilean	47	125,790	176,472	157,035.25	107,147
Colombian	22	5,701	5,767	6,612.11	5,897
Danish	65	193,437	245,929	229,205.17	317,274
Danzig	11	65,303	88,276	72,498.00	54,764
Dutch	102	412,431	551,761	489,807.74	573,929
Ecuadorian	1	36	36	27.00	.....
Finnish	3	4,782	4,798	5,757.60	7,500
French	83	337,543	386,640	428,571.60	407,249
German	150	483,992	660,156	604,085.65	737,103
Greek	1	3,167	4,038	3,958.75	6,562
Italian	43	140,334	164,448	170,565.90	125,156
Japanese	171	702,812	815,468	844,976.31	935,245
Jugo-Slavic	7	18,621	27,087	23,276.25	45,231
Mexican	1	163	192	138.24	.....
Norwegian	136	416,682	546,633	496,876.96	539,101
Panaman	21	33,571	43,056	40,804.19	35,719
Peruvian	70	102,664	189,046	127,183.38	102,136
Spanish	45	137,240	172,572	160,336.90	67,903
Swedish	39	107,677	161,993	130,935.00	210,517
United States	2,947	12,743,711	15,806,899	14,483,327.71	16,654,436
Totals, fiscal year 1924	5,230	20,957,233	26,148,879	24,290,963.54	26,994,710
Totals, fiscal year 1923	3,967	14,966,493	18,605,786	17,508,414.85	19,567,875

As related to the total traffic and as compared with the fiscal year 1923, the classification by nationality is more clearly shown in the follow-

ing tabulation in which the percentage of the fiscal years' traffic, 1923 and 1924, is substituted for the actual figures. In this tabulation figures are shown only for those nationalities whose vessels made 50 or more transits during the fiscal year 1924:

PERCENTAGE OF TRAFFIC BY NATIONALITY.

Nationality.	Number of ships.		United States equivalent net tonnage.		Panama Canal net tonnage.		Tolls.		Cargo tonnage.	
	1923.	1924.	1923.	1924.	1923.	1924.	1923.	1924.	1923.	1924.
United States	50.2	56.3	55.3	61.2	55.0	60.4	54.1	59.6	56.5	61.7
British	26.8	24.2	26.5	23.3	26.8	23.3	27.0	23.1	25.2	22.4
Japanese	4.1	3.3	4.4	3.4	4.0	3.1	4.1	3.5	4.8	4.8
German	2.3	2.8	1.7	2.3	1.8	2.6	1.8	2.5	1.7	2.7
Norwegian	3.7	2.6	3.2	2.1	3.2	2.1	3.1	2.0	3.6	2.0
Dutch	2.7	1.9	2.5	2.0	2.7	2.1	2.6	2.0	2.8	2.1
French	1.4	1.6	1.4	1.6	1.4	1.5	1.5	1.8	1.2	1.5
Danish	1.6	1.2	1.2	0.9	1.3	0.9	1.3	0.9	1.6	1.2
Peruvian	2.0	1.3	0.8	0.5	1.2	0.7	0.9	0.5	0.6	0.3
Other	5.2	4.8	3.0	2.7	2.6	3.3	3.6	4.1	2.0	1.3
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The percentage of increase of vessels of United States registry, 1924 over 1923, ranges from 5.2 tons of cargo carried to 6.1 in number of transits, while other nationalities, excepting German, show decreases. These decreases are, however, relative rather than actual, due to the increase in volume of traffic for the year. The actual figures show increases in number, tonnage, etc.

Transits of vessels of German registry have risen from 17, during the fiscal year 1920, when the first German vessels transited the Canal, to 150 in the fiscal year 1924.

Two Salvaged Vessels in Balboa Dry Dock.

On July 15 there were placed in the Balboa dry dock the Pacific Mail steamship *Colombia*, which had been aground off the west coast of Costa Rica, and the German steamship *Sisak*, owned and operated by the Kosmos Line, which had been aground off the west coast of Ecuador. These two vessels have a total length of 792 feet and do not fill the dry dock, which is 1,000 feet long.

The *Colombia* is a vessel of United States registry, owned and operated by the Pacific Mail Steamship Co., of 3,368 United States equivalent net tonnage, 4,281 tons net, Panama Canal measurement, and was en route from San Francisco to New York with cargo and passengers when she went aground at Cano Island, off the west coast of Costa Rica, in the night of June 19, 1924. The passengers were first transferred to the steamship *Robert Luckenbach*, later to the U. S. Navy transport *Chaumont*, and landed safely at Balboa on June 22.

The *Sisak* is a vessel of 2,909 United States equivalent net tonnage, 4,349 tons net, Panama Canal measurement, and was en route from Hamburg to Corral, Chile, when she went aground off Bahia de Caraquez, Ecuador, on May 26, 1924. She was floated by the wrecking tug *Favorite* on July 4, 1924, and towed to Balboa, arriving July 13.

During the wrecking operations on the *Sisak*, one of the crew of the *Favorite* suffered a fractured arm and another a fractured leg. After the vessels had been dry docked and work started in the forward hold of the *Colombia*, 4 silver employees of the Mechanical Division were killed by gas from the water-soaked cargo.

First Transit of the Panama Canal by Vessel Flying the Flag of Ireland.

On the morning of July 27, 1924, there arrived in Cristobal for Canal transit the tankship *Westwego*, owned by the Irish-American Oil Co., chartered to the Anglo-American Oil Co., and flying the flag of the Irish Free State. The *Westwego* was in ballast, en route from Liverpool to San Francisco. This vessel has made several transits of the Canal under the United States flag, the last one having been in May with a cargo of lubricating oil from San Francisco for London, when her owners were the Union Petroleum Steamship Co. and the charterers the same as this transit, the Anglo-American Oil Co.

Full Cargo of Molasses in Tankship Through the Canal.

The tankship *Carrabulle* passed through the Canal on July 25, carrying 6,100 tons of molasses in bulk from Kahului, Maui Island, Territory of Hawaii, to Mobile, Ala. The *Carrabulle* is a tankship of United States registry, owned and operated by the Cuba Distilling Co., and chartered to G. U. Snyder & Co., of Mobile, Ala.

Steamship "Panama" Should Arrive at Cristobal, August 2.

The steamship *Panama* sailed from New York for Cristobal, via Port au Prince, Haiti, on Friday, July 25 at 4 p. m., and should arrive at Cristobal on Saturday, August 2. In addition to usual amount of cargo on board, steamer has 107 passengers and 96 bags of mail for the Canal Zone.

The *Panama* will sail from Cristobal for New York, via Port au Prince, on Friday, August 8 at 3 p. m.

Density of Water in Balboa and Cristobal Harbors.

Place.	Date.	Weight of sea water in ounces per cubic foot.	Average temperature degrees F.	Depth.	Remarks.
				Feet.	
Cristobal (between docks 8 and 9)	July 19 to 26, incl.	1018 to 1019	85.0	3	High tide.
Balboa (dock 18)	July 19 to 26, incl.	1012 to 1015	81.5	4.5 to 12	High and low tide.

(NOTE—The weight of a cubic foot of fresh water at 83° F. is 995 ounces.)
Sample taken below Miraflores Locks opposite range light No. 12 on July 25, showed 2 ounces lighter per cubic foot than water at dock 18, Balboa.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal for Week Ending July 26, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Santa Paula	Pacific Mail Steamship Co		July 20		338
Parismina	United Fruit Co	July 20	July 20	194	214
Toloa	United Fruit Co	July 20	July 20	30	234
Ucayali	Peruvian Line	July 21		2,356	
Atenas	United Fruit Co	July 22	July 23	851	(2)
Professor	Harrison Line	July 23	July 25	905	(2)
Manuel Arnus	Spanish Line	July 23	July 24	95	140
Parismina	United Fruit Co	July 23	July 23	1½	(3)
Calamares	United Fruit Co	July 23	July 23	210	112
Metapan	United Fruit Co	July 23	July 24	315	202
Santa Marta	United Fruit Co	July 23	July 24	(1)	451
General. W. C. Gorgas	Panama Railroad Steamship Line	July 24		1,956	
Saint Jean	French Line	July 24	July 25	80	(2)
Essequibo	Pacific Steam Navigation Co	July 24	July 25	113	280
Acajutla	Pacific Steam Navigation Co	July 24		1,000	
Losada	Pacific Steam Navigation Co	July 24	July 25	54	1
Venezuela	Italian Line	July 25	July 26	240	100
Camito	Elders & Fyffes, Ltd	July 26	July 26	11	(2)
Carolyn	Grace Line	July 26		128	
Ashbee	Grace Line	July 26		200	

[1] No cargo discharged. [2] No cargo laded. [3] One case

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 26, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Steel Ranger	19	14.05	20	6 05	20	13.35	20	11.40	American	United States Steel Products Co.	424.0	56.0	26.7	Philadelphia	Java	(5)	8,448	7,611	5,450
Lio [1]	20	3 05	20	7.20	20	14.26	20	15.50	American	McAllister Brothers (S. B.)	431.0	59.2	21.0	New York	San Pedro	Ballast		7,862	5,177
Agwisea [1]	20	7.55	20	8.25	20	15.45	20	16.48	American	International Shipping Co	468.3	62.7	18.6	New York	San Pedro	Ballast		9,802	6,961
Tsuyama Maru	20	8.56	20	9.15	20	16.52	20	18.05	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	New York	Yokohama	General	7,064	7,956	5,681
Santa Paula	19	18.20	20	11.30	20	18.20	20	19.34	American	Pacific Mail Steamship Co.	404.6	53.9	21.3	Norfolk	Los Angeles	General	4,773	6,756	4,775
Dixie Arrow [1]	20	13.35	20	13.45	20	20.32	20	21.45	American	Standard Transportation Co.	468.3	62.7	19.0	New York	San Pedro	Ballast		9,741	7,140
Trontolite [1]	20	17.50	21	6.30	21	14.11	21	16.42	British	Imperial Oil Co.	428.0	57.0	26.0	Tampico	Antofagasta	Crude oil	8,000	7,240	4,572
La Brea [1]	22	0.25	22	6.25	22	12.48	22	19.13	American	Union Oil Co	435.0	56.2	20.0	Philadelphia	Los Angeles	Ballast		7,150	4,765
Ponona	22	10.45	22	10.57	22	18.25	22	19.23	American	Isthmian Line	440.0	56.0	29.0	Norfolk	San Francisco	Coal	10,000	8,300	6,026
Knight Templar	22	13.32	22	13.40	22	20.29	23	0.03	British	Alfred Holt & Co	470.0	58.8	23.0	New York	Yokohama	(6)	1,412	8,120	5,808
Cleveland [2]	18	20.50	23	6.15	23	13.41			American	U. S. Navy	292.0	44.0	17.7	Cristobal	Balboa	Ballast			
Tekoa	22	22.35	23	6.25	23	15.56	24	7.55	British	New Zealand Shipping Co	460.0	62.0	22.0	London	Auckland	General	4,638	10,259	7,092
Brattingsborg	23	6.30	23	7.08	23	16.53	23	17.53	Danish	C. K. Hansen	325.0	47.0	13.0	Hampton R'ds	Pisagua	Ballast		3,350	2,390
Vistula [1]	23	6.55	23	8.02	23	19.06	23	20.04	Danzig	Standard Oil Co	500.1	54.1	19.0	Montreal	San Pedro	Ballast		10,604	8,167
Agwihavre [1]	23	10.15	23	10.30	23	19.56	23	21.00	American	International Shipping Co	480.5	66.0	19.0	Baltimore	Los Angeles	Ballast		9,391	6,305
Julia Luckenbach	23	6.22	23	11.00	23	20.45	23	21.44	American	Luckenbach Line	436.0	57.0	25.3	Boston	Seattle	General	6,250	8,543	6,402
Atto	23	8.55	24	6.10	24	13.40	24	15.45	German	Roland Line	360.0	51.0	21.3	Bremen	Valparaiso	General	4,107	4,805	3,400
Hamlin F. McCormick	23	17.25	24	6.20	24	14.28	24	15.45	American	McCormick Steamship Co	321.7	50.0	21.8	Norfolk	San Diego	Coal	4,623	3,883	2,484
Chilore	24	5.55	24	6.28	24	15.29	24	16.30	American	Ore Steamship Co	549.0	72.0	22.0	Baltimore	Cruz Grande	Ballast		14,538	9,348
Chaumont [3]	24	5.40	24	10.03	24	16.25	26	19.15	American	U. S. Navy	448.0	58.2	24.0	New York	Chefoo	Naval supplies	215		
A. L. Kent	24	10.05	24	12.50	24	19.30	24	20.54	American	Mystic Steamship Co	394.1	55.1	22.8	Baltimore	Vancouver	(7)	5,413	7,047	5,030
Elisha Walker [1]	24	11.10	25	6.21	25	13.34	25	14.35	American	Pan-American Petroleum Co	429.3	59.2	20.10	Pennsgrove	San Pedro	Ballast		7,978	5,971
Saint Jean	24	12.45	25	6.08	25	13.46	25	14.47	French	French Line	415.0	50.3	18.7	Bordeaux	Talcahuano	General	1,186	5,849	4,081
Agwipond [1]	24	15.40	25	7.22	25	14.38	25	15.45	American	International Shipping Co	468.3	63.0	22.6	New York	San Pedro	Ballast		9,810	6,965
J. M. Danziger [1]	24	16.25	25	7.32	25	15.27	25	16.30	American	Pan-American Petroleum Co	430.0	58.2	20.2	New York	San Pedro	Ballast		6,963	4,886
Mahanada	24	18.30	25	8.13	25	15.47	25	16.50	British	Commonwealth & Dom. Line	470.0	58.5	19.0	Philadelphia	Sydney	General	6,250	7,781	5,449
Sunugenteo	24	23.30	25	8.30	25	16.23	25	17.18	American	Transmarine Line	324.0	46.2	21.0	Port Newark	San Francisco	General	4,000	3,984	2,613
Fuji Maru	25	0.30	25	9.48	25	16.50	25	17.50	Japanese	Kabushiki Kawasaki Zosenjo	405.0	53.0	17.0	New York	Arica	Ballast		7,025	5,055
Essequibo	24	17.35	25	10.05	25	17.16	25	18.27	British	Pacific Steam Navigation Co	450.0	57.0	25.2	New York	Valparaiso	General	2,571	9,099	6,117
Atlantic Sun [1]	25	2.50	25	10.53	25	17.48	25	18.48	American	Sun Oil Co	429.3	59.2	21.0	Philadelphia	Los Angeles	Ballast		7,568	5,283
Losada [4]	24	23.20	25	12.00	25	18.45	25	23.18	British	Pacific Steam Navigation Co	406.1	54.2	19.10	Hull	Valparaiso	General	3,636	7,221	4,844
Pennsylvanian	25	8.17	25	12.45	25	19.18	25	20.22	American	American-Hawaiian Line	407.7	53.7	21.2	New York	San Pedro	General	4,243	7,107	4,916
James B. Duke	25	15.00	26	6.30	26	13.31	26	14.30	American	Garland Steamship Corporation	385.0	51.2	15.0	New York	Seattle	General	1,000	6,242	4,471
Nora [1]	26	0.01	26	6.17	26	14.25	26	15.34	American	Pan-American Petroleum Co	485.0	62.7	20.0	Baltimore	San Pedro	Ballast		9,918	7,363
Sunoil [1]	26	1.50	26	7.28	26	14.45	26	16.10	American	Sun Oil Co	430.0	58.2	26.0	Grangemouth	Vancouver	Creosote	8,028	7,439	5,209
Lebore	26	3.15	26	7.35	26	15.51	26	17.00	American	Ore Steamship Co	549.0	72.0	23.1	Baltimore	Cruz Grande	Ballast		14,325	4,635

[1] Tanker. [2] Cruiser. [3] Transport. [4] Motor ship. [5] Steel, sulphate, ammonia, and general. [6] Machinery, tobacco, oil, and general. [7] General and steel products.

Vulcan	26	2.55	26	8 20	26	15.54	26	21.00	American	Pacific States Lumber Co	386.0	53.0	22.9	Baltimore	San Francisco	General	4,003	6,000	3,544
Bowes Castle	26	7 37	26	8.45	26	16.46	26	19.46	British	James Chambers & Co	418.0	56.0	25.6	New York	Yokohama	General	6,416	6,675	4,698
Agwisun [1]	26	7.55	26	9.25	26	17.04	26	18.05	American	Atl. Gulf & W. I. S. S. Co	429.0	59.2	20.0	New York	San Pedro	Ballast		7,612	5,402
Sidney M. Hauptman	26	10 02	26	10.53	26	17.27	26	19.46	American	Munson McCormick Line	401.0	52.0	17.6	New York	Portland	General	3,446	7,082	5,167
Cerro Ebano [1]	26	6.50	26	11.38	26	18.09	26	19.06	American	Pan-American Petroleum Co	480.5	66.0	21.0	New York	San Pedro	Ballast		9,398	6,453
William H. Doheny [1]	26	7.10	26	12.45	26	19.01	26	20.00	American	Pan-American Petroleum Co	435.0	56.0	21.6	New York	Los Angeles	Ballast		7,406	5,111
Venezuela	25	12.02	26	13.35	26	20.12	26	21.28	Italian	La Veloce Line	420.0	51.6	23.3	Genoa	Valparaiso	General	545	7,622	5,051

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Munindies	20	5.15	20	7.14	20	14.30	20	14.30	American	Munson McCormick Line	370.0	53.0	25.0	Willapa	Philadelphia	Lumber, singles	6,300	5,425	4,097
Paul Luckenbach	20	10.57	20	12.15	20	19.20	20	19.20	American	Luckenbach Line	471.1	59.2	25.6	Portland, Oreg	Boston	General, lumber	8,100	9,027	6,539
Invergarry [1]	20	12.00	20	12.42	20	20.55	20	22.00	British	Andrew Weir & Co	412.6	55.8	27.3	San Pedro	Thames Haven	Gasoline	7,800	7,101	4,709
Maine	20	8.50	20	14.28	20	22.05	20	22.05	American	Pan-Pacific Line	402.0	54.2	28.6	Majillones	Boston	Nitrate	8,795	6,936	4,998
Algonquin [1]	20	17.50	21	6.14	21	13.58	21	13.58	American	Standard Transportation Co	435.0	56.0	27.8	San Pedro	New York	Crude oil	9,536	7,602	5,337
San Zefcrino [1]	20	23.30	21	7.17	21	14.45	21	14.45	British	Anglo-Mexican Petroleum Co	420.1	54.6	25.6	San Pedro	Tampico	Crude oil	8,500	6,636	4,408
Sudawsonco	21	6.50	21	7.48	21	15.45	21	15.45	American	Transmarine Corporation	324.0	46.2	23.0	San Francisco	New York	(9)	4,000	3,984	2,612
Santa Ana	21	7.05	21	8.33	21	16.15	21	20.41	American	Grace Line	360.2	51.6	23.0	Antofagasta	New York	General	3,226	5,776	4,081
Iowan	21	7.50	21	8.24	21	15.15	21	21.58	American	American-Hawaiian Line	407.7	53.7	22.6	Seattle	Boston	General	3,937	7,091	5,002
San Salvador [1]	21	9.50	21	10.40	21	18.10	21	21.05	British	Anglo-Mexican Petroleum Co	407.4	52.2	26.0	San Pedro	London	Gasoline	7,462	6,157	4,137
Canadian Challenger	21	10.20	21	11.16	21	18.15	22	6.15	British	Canadian Govt. Mer. Marine	400.0	52.2	16.0	Brisbane	Montreal	General	1,069	6,142	4,354
Juvigny	21	5.30	21	12.19	21	19.35	21	19.35	American	Lind Navigation Corporation	251.0	43.6	18.0	Raymond	New York	Lumber	2,610	2,653	1,611
Ucayali	21	10.50	21	13 08	21	19.55	28	11.52	Peruvian	Peruvian Line	374.7	46.3	23.0	Callao	Cristobal	General	2,356	4,466	2,405
Orleans	23	6.30	23	7.20	23	14.27	23	14.27	American	Oriental Navigation Co	395.5	55.0	24 8	Aberdeen	New York	Lumber	7,736	7,330	5,233
E. T. Bedford [1]	23	6 45	23	7.45	23	15.45	23	15.45	American	Standard Oil Co. of N. J.	199.2	68.1	29.10	San Pedro	New York	Crude oil	15,730	11,009	7,967
Kroonland	23	2 00	23	10 02	23	16.45	23	17.40	American	Panama-Pacific Line	560.0	60.2	23.0	San Francisco	New York	Fruit, general	1,975	13,516	9,127
Hood [8]	23	7 30	23	10.12	24	12 10	24	12.10	British	British Navy	860.7	105 2	32.0	San Francisco	Jamaica		(10)		
Repulse [8]	23	7 30	23	11 34	24	13.42	24	13.42	British	British Navy	794	2½	102.5¼	30.0	San Francisco	Jamaica		(11)	
Manuel Arnus	22	22.30	23	12 35	23	20 14	24	13.20	Spanish	Spanish Line	435.0	56 0	18 0	Valparaiso	Barcelona	Nitrate, cacao	713	7,732	5,518
Oak Branch	23	7 10	23	13.25	23	21.30	23	22.10	British	F. and W. Ritson	305.0	49.8	22 10	Valparaiso	Liverpool	General	6,193	5,209	4,035
Llanquihue	23	11 10	23	14 13	23	23 10	24	6.05	Chilean	Praun & Blanchard	360.6	43.2	24.0	Talcahuano	Taval	Wheat	4,111	3,884	2,596
Adelaide [8]	23	5 53	24	6 32	24	13 50	24	13.50	British	Australian Navy	452.	6½	49.10	16.10	San Francisco	Jamaica	(12)		
Wiegand	23	14 14	24	6 48	24	15.15	24	18.40	German	Roland Line	408.1	54.0	25 0	Iquique	Hamburg	General	8,124	6,573	4,629
Lake Gunni	23	15 15	24	7 12	24	16 05	24	16.05	American	Steel Steamship Line	253.4	43.8	21 6	Portland	New Orleans	General, lumber	2,150	2,915	2,005
Acajutla	23	18 00	24	7 53	24	16.15	..	.....	British	Pacific Steam Navigation Co	215.7	33.5	16.9	Champerico	Cristobal	(13)	1,000	1,273	706
Herakles	23	23.15	24	8 25	24	17.15	24	18.05	Norwegian	Fruusgaard & Co	389.8	54 1	24.8	Mejillones	Philadelphia	Nitrate of soda	8,143	5,680	4,220
Havana Maru	24	0.20	24	8 40	24	17.15	24	17.45	Japanese	Osaka Shosen Kaisha	407.3	50.8	16.10	Shanghai	New York	General cargo	1,854	6,538	4,769
West Jappa	24	1 15	24	9 05	24	18.00	24	22.07	American	Swayne & Hoyt (S. B.)	410.5	54.2	25.0	San Francisco	Buenos Aires	Lumber, general	6,024	6,755	4,873
Vancolite [1]	24	2 00	24	10 09	24	18.40	24	18.40	British	Imperial Oil Co., Ltd	500.3	68 0	28.10	Talara, Peru	Charleston	Crude oil	15,221	11,043	7,874
Melville Dollar	24	9.20	24	10.36	24	19 20	25	2.40	American	Robert Dollar Line	429.0	55 2	24.10	Vancouver	New York	Lumber, general	6,670	7,581	5,519
Cape Cod [1]	24	6.40	24	12 32	24	22.20	24	22.20	American	Pure Oil Co	425.8	57.0	27.0	San Pedro	Bayonne	Crude oil	10,057	7,218	5,184
Willhilo	24	12.30	24	13.12	24	20.57	24	20.57	American	Williams Steamship Co	450.0	57.6	27.0	Seattle	New York	Lumber, general	1,541	7,983	5,886
Agwilake [1]	24	14.00	24	14.39	24	23 10	24	23.10	American	International Shipping Corp	468.3	62.7	28 10	San Pedro	New York	Crude oil (bulk)	12,556	9,802	6,957
Silksworth	24	14 15	25	6 17	25	14 15	25	16.50	British	Dalgliesh Steamship Co	414 0	53.3	25.6	Tocopilla	Alexandria	Nitrate	7,600	6,530	4,623

[1] Tanker. [8] British battleship. [9] Lumber and manganese ore. [10] Displacement tonnage 44,799. [11] Displacement tonnage 35,359. [12] Displacement tonnage 5,737. [13] Coffee, hides, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Carrabulle [1]	25	6.25	25	7.08	25	15.35	25	15.35	American	Cuba Distilling Co	390.0	54.2	26.0	Kahului	Mobile	Molasses (bulk)	6,100	6,183	4,265
Eurana	25	16.40	26	6.11	26	14.30	26	14.30	American	Planet Line	400.0	56.2	26.0	Everett	Baltimore	([15])	7,884	7,381	5,595
Susherico	25	22.20	26	7.18	26	16.15	26	16.15	American	Transmarine Corporation	324.0	46.2	21.3	South Bend	Newark	([16])	3,551	3,984	2,612
Carolyn	26	7.10	26	8.11	26	16.26	26	21.27	American	Grace Line	313.6	46.1	19 7	Tocopilla	New York	([17])	3,795	3,644	2,566

[15] Fir and hemlock lumber. [16] Lumber and auto tires. [17] Nitrates, coffee, cotton, cocoa, etc. Hours are expressed on the 24-hour basis and all hours greater than 12 are post-meridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
July 20	Parismina	United Fruit Co	New Orleans via Habana.
July 20	Toloa	United Fruit Co	Port Limon.
July 22	Atenas	United Fruit Co	New Orleans via Habana.
July 23	Calamares	United Fruit Co	New York via wayports.
July 23	Professor	Harrison Line	Liverpool via wayports.
July 23	Metapan	United Fruit Co	New York via Kingston.
July 23	Parismina	United Fruit Co	Bocas del Toro.
July 24	General W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
July 24	Santa Marta	United Fruit Co	Colombian ports.
July 26	Camito	Elders & Fyffes, Ltd	Port Limon.

*DEPARTURES.

Date.	Vessel.	Line.	For—
July 20	Cristobal	Panama Railroad Steamship Line	New York via Haiti.
July 20	Toloa	United Fruit Co	New York via Habana.
July 20	Parismina	United Fruit Co	Bocas del Toro.
July 21	Chateau Thierry [18]	U. S. Army	New York.
July 23	Parismina	United Fruit Co	New Orleans via Habana.
July 23	Atenas	United Fruit Co	New Orleans via wayports.
July 23	Calamares	United Fruit Co	Port Limon.
July 24	Metapan	United Fruit Co	Colombian ports.
July 25	Professor	Harrison Line	Puerto Cortez.
July 24	Santa Marta	United Fruit Co	New York via Kingston.
July 25	Baralt	Dutch Line	Curacao.
July 26	Camito	Elders & Fyffes, Ltd	Bristol via Kingston.

[18] Transport.

PORT OF BALBOA.

July 19	Giulia [19]	J. McMillan	High seas.	July 24	Giulia [19]	J. McMillan	Mazatlan.
July 18	Atrato [20]	Colombian Transport Co	Buenaventura.	July 20	Atrato [20]	Colombian Transport Co	Buenaventura.
July 21	Poljana	General Steamship Corporation	Tacoma.	July 23	Poljana	General Steamship Corporation	Antofagatsa.
July 26	El Chitre	Corra & Sossa	Panama City.	July 26	El Chitre	Corra & Sossa	Panama City.

[19] Yacht. [20] Motor ship. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XVII. Balboa Heights, C. Z., August 6, 1924. No. 52.

Traffic in July.

During the month of July, 1924, there were 422 commercial transits of the Panama Canal, on which tolls to the amount of $1,935,169.68 were paid. In addition to this amount, $126.75 was collected on a supplemental bill against a June transit, making the total tolls collection for the month $1,935,296.43. In addition to the 422 commercial transits of the Canal, 18 vessels belonging to or chartered by the United States Government made the transit, bringing the total transits of the month to 440, or a daily average of all transits of 14.19. The daily average tolls collections was $62,428.92. There were no small launches through the Canal during the month.

Detail of the month's traffic segregated by direction is as follows:

Direction	Vessels.			Tolls.
	Commercial.	Government.	Total.	
Atlantic to Pacific	218	16	234	$932,946.62
Pacific to Atlantic	204	2	206	1,002,349.81
Totals	422	18	440	1,935,296.43

The average amount of tolls paid by each of the 422 commercial transits was $4,585.71. This is exclusive of the $126.75 collected in July but earned in June. The average daily number of commercial transits was 13.61.

The commercial traffic for the calendar year 1924, month by month, is given in the following tabulation, with the daily averages for each month and the total to the end of July, 1924:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	476	$2,216,855.01	15.35	$71,511.45
February	418	1,964,155.59	14.41	67,729.50
March	429	1,997,138.83	13.84	64,423.83
April	403	1,903,761.27	13.43	63,458.71
May	417	1,955,764.91	13.45	63,089.19
June	377	1,792,821.22	12.57	59,760.71
July	422	1,935,296.43	13.61	62,428.92
Totals	2,942	13,765,793.26	13.81	64,628.14

The outstanding features of the month's traffic were the passage of a floating dry dock through the Canal on the 15th, report of which was published in THE PANAMA CANAL RECORD of July 23, and the transits of the British naval vessels *Hood* and *Repulse*, the two largest vessels to transit the Canal. Details may be found in THE PANAMA CANAL RECORD of July 30.

Reduction in Price of Coal.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., August 1, 1924.

MEMORANDUM TO STEAMSHIP AGENTS:

Effective September 1, 1924, the price of bunker coal per ton will be $8.50 at Cristobal and $11.50 at Balboa.

As the cooperation of shipping interests is the controlling factor in determining the price at which this commodity can be sold, it is requested that your principals be notified immediately of this change.

A. W. HINDS,
Marine Superintendent.

Supplement No. 12.—Tariff No. 7.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., July 28, 1924.

ITEM 21.—COAL.
(Effective September 1, 1924.)

	Cristobal Colon.	Balboa.
4. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.50	$11.50
5. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.50
6. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.50	12.50
7. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.50	14.50

JAY J. MORROW,
Governor, The Panama Canal.
President, Panama Railroad Company

First Shipment of Bananas from the Isthmus to West Coast of Canada.

On the 27th of July there was loaded at Cristobal, 1,760 bunches of bananas shipped by the American Banana Corporation to a firm in Vancouver, B. C. This is believed to be the first shipment of bananas from the Isthmus to the west coast of Canada. These bananas were loaded aboard the British steamship *London Merchant*, a cargo and passenger vessel of 5,720 tons, Panama Canal measurement, owned and operated by Furness Withy & Co.

Density of Water in Balboa and Cristobal Harbors.

Place.	Date.	Weight of sea water in ounces per cubic foot.	Average temperature degrees F.	Depth.	Remarks.
				Feet.	
Cristobal (between docks 8 and 9)	July 27 to Aug. 2, incl.	1017 to 1019	83.0	3 and 12	Low tide.
Balboa (dock 18)	July 27 to Aug. 2, incl.	1011 to 1013	83.0	12	High and low tide.

(NOTE—The weight of a cubic foot of fresh water at 83° F., is 995 ounces.)
Samples at Cristobal at 12 foot depth showed a constant weight of 1,019 ounces per cubic foot.

Executive Order.

The area of land hereinafter described situated in the Canal Zone is hereby set apart and assigned to the uses and purposes of a Naval Reservation and shall be under the control of the Secretary of the Navy; but said area shall be subject to the civil jurisdiction of the Canal Zone authorities in conformity with the Panama Canal Act.

The said area is described as follows:

"Starting at a concrete and rail monument, marked "Z" on the map, thence on an azimuth of 217° 40′ for a distance of 780 feet to a similar monument on the top edge of the bank on the shore of Panama Bay, and marked "V" on the map; thence along the top of the bank to a similar monument marked "Y" on the map; thence on an azimuth of 68° 37′, crossing Amador Road at right angles, for a distance of 844.5 feet to a point on the extension of the east line of tank site No. 5; thence on an azimuth of 11° 10′, along the extension and the east line of lot No. 5, a distance of 442.6 feet to a point which is 11 feet from the southeast corner of No. 5 tank site lot; thence on an azimuth of 307° 40′, for a distance of 1,286 feet, passing through old monuments "W" and "C," to monument "Z", the point of beginning. All as shown on map marked "The Panama Canal, Section of Surveys," "U. S. Navy Reservation, Balboa, Canal Zone" dated 30 October, 1923; File No. 6064–4."

All azimuths are true, zero azimuth is south.

Executive Order of 26 May, 1914, setting apart a site for the Balboa Radio Station, and Executive Order of 28 May, 1918, transferring a portion of the Balboa Radio Station Reservation from the control of the Secretary of the Navy to the control of the Secretary of War, and Executive Order of 25 July, 1919, so far as it relates to the transfer of a portion of the Balboa Radio Station Reservation from the control of the Secretary of the Navy to the control of the Secretary of War, and so far as the description of Fort Amador contained therein is in conflict with the description of the Balboa Radio Station Reservation as hereinbefore established, and Executive Order of 16 May, 1923, setting apart an area of land as an addition to the Balboa Radio Station Reservation, are all hereby rescinded.

CALVIN COOLIDGE

THE WHITE HOUSE,
July 8, 1924.

[No. 4047.]

Ships at Canal Repair Shops.

The following is a report of repairs to vessels at Cristobal Shops for the two weeks ending August 4, 1924:

Steamships *Basalt*, dock, clean, and paint; remove old and install new circulating and air pump; overhaul sea valves; free up davit, etc.; *Acajutla*, manufacture canvas screen for bridge, parts for tube stoppers, stop valve cover, two stop valve spindles, and new valve for injector; repair winch, bilge pipe, two scales, ladder, hand rail, and hand tools, etc.; *General W. C. Gorgas*, true up grooves in H. P. bull ring and manufacture two sets of snap rings; remetal and bore top half of second go-ahead eccentric strap; repair main and auxiliary steam cross connection, fire tools, chisels, rail stanchion, ventilator, turnbuckles, rigging pin rail, and kitchen sink; recalk poop deck, etc.; *Brion*, dock, clean, and paint; clean boilers; repair circulating pump, gangway and rudder; cut hole in galley box, etc.; river steamer *San Francisco*, manufacture 100 "U" bolts, two tarpaulins, 50 spokes for paddle wheel, and 15 hardwood paddles; rebrick boilers; cover engine cylinders and steam pipes; repair rudder post, door, and pilot house, and galley windows; test all steam gauges; install cleats on bow and 2″ planks as protection against bad weather as directed by master, etc.; steamships *Ulysses*, repair chronometer valve for main feed pipes, brine pump, and life chain stanchions; renew section of steam and exhaust piping to boat deck hoister. Scale starboard side of ship; clean fireroom and boilers; manufacture 5 pipe hangers and two brass stencils, etc.; *Panama*, repair scupper pipes, fire tools, sanitary line, two gate rails, and pantry steam press; renew sections of ceiling in No. 1 hold; renew garbage chute for main deck; dress spikes, hammers, and cargo hooks, etc.

Minor repairs—Steamships *Parismina*, *Saint Jean*, *Venezuela*, *Ancon*, *Crynssen*, *Jamaica*, *Carolyn*, *Pastores*, *San Juan*, motor ship *Laura C. Hall*, power barge *Alma R.*, and launches *Cabiria*, and *Patrol*.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete list of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 2, 1924.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ashbee [2]	26	10.22	27	6.10	27	13.30	27	14.40	American	Crace Line	333.8	48.0	20.7	New York	Antofagasta	Explosives, gen.	2,941	4,101	2,687
El Grillo [1]	26	17.20	27	6.38	27	14.15	27	15.28	British	C. T. Bowring & Co	440.5	57.5	23.7	Halifax	Talara	Ballast		7,468	5,042
Byron D. Benson [1]	27	1.00	27	7.05	27	14.46	27	15.36	American	Tidewater Oil Co	465.4	60.2	20.0	New York	San Pedro	Ballast		8,546	6,095
J. R. Gordon	27	6.40	27	7.40	27	15.40	27	23.00	American	Union Sulphur Co	409.8	54.2	24.0	Sabine	San Pedro	Sulphur	7,500	6,581	4,784
Dochra	27	7.52	27	8.30	27	16.17	29	19.20	American	Barber Line	386.0	51.0	22.1	Port of Spain	Vancouver	Sugar	5,800	5,158	3,813
Izalran	27	6.52	27	8.42	27	16.54	27	20.00	Jugo-Slavic	Nav. Libera Racich & Co	378.0	53.0	22.0	Blythe	Caleta Buena	Coal	6,203	5,217	3,954
City of Winchester	27	2.30	27	9.45	27	17.17	27	21.30	British	Ellerman & Hall Line	456.0	57.0	27.11	New York	Sydney	General	6,056	8,783	6,693
Westwego [1]	27	7.25	27	10.05	27	18.10	28	12.15	Irish	Irish-American Oil Co	387.0	51.0	17.0	Liverpool	San Francisco	Ballast		5,382	3,647
Martha Hemseth	26	23.30	27	10.55	27	19.32	27	21.00	German	Rob. M. Sloman	407.0	52.0	24.3	Glasgow	Los Angeles	General	8,138	6,620	4,889
Denham	27	12.15	27	12.30	27	20.00	28	1.16	British	Chile Steamship Co	379.0	50.0	18.0	New York	Antofagasta	(5)	1,743	5,337	3,870
London Merchant	27	6.43	27	13.52	27	20.47	28	4.04	British	Furness, Withy & Co	450.0	58.1	16.4	Manchester	Vancouver	General, bananas	900	8,416	5,720
New Britain	27	16.35	28	6.35	27	13.40	28	19.54	American	Black Diamond Shipping Co	386.8	52.2	20.0	New York	Seattle	General	5,569	5,684	4,082
Astyanax	27	18.35	28	6.35	28	13.14	28	14.18	British	Alfred Holt & Co	392.3	49.2	16.6	Liverpool	Tacoma	General	900	5,165	3,211
Alden Anderson [1]	27	22.20	28	7.22	28	14.36	28	15.35	American	Associated Oil Co	426.9	54.6	22.3	Fall River	San Pedro	Ballast		7,340	5,236
Steel Traveler	27	23.20	28	7.30	28	14.58	28	15.55	American	Isthmian Line	424.2	56.2	24.10	New York	Vancouver	General, steel	7,158	7,698	5,509
Liberator	28	7.02	28	8.23	28	16.19	28	20.50	American	Tampa Interocean Co. (S. B.)	410.0	56.0	30.4	New Orleans	Honolulu	Case oil, general	8,358	8,199	6,216
Canadian Inventor	28	8.00	28	9.40	28	16.48	28	18.00	British	Canadian Govt. Mer. Marine	400.1	52.4	16.2	Montreal	Vancouver	General	1,500	5,916	4,159
Ucayali	31	19.55	28	11.52	28	18.50	28	20.50	Peruvian	Peruvian Line	374.0	46.2	19.0	Cristobal	Callao	General	995	4,466	2,405
Dean Emery [1]	27	23.35	28	11.20	28	17.54	28	19.00	American	Pan.-Amer. Pet. & Transp. Co	429.3	59.2	17.10	New York	San Pedro	Ballast		7,709	5,517
Borga [2]	27	22.12	28	11.55	28	19.10	29	17.37	Norwegian	Norway-Pacific Line	362.4	51.4	25.0	Kristiansand	Los Angeles	(6)	6,950	5,242	3,705
Rhine Maru	28	13.40	28	13.55	28	20.45	28	23.10	Japanese	Kawasaki Dockyard Co	405.0	53.0	15.0	Philadelphia	Chile	Ballast		7,044	5,136
William Green [1]	29	0.10	29	10.25	29	17.11	29	18.15	American	Huasteca Petroleum Co	430.0	58.2	19.3	New York	San Pedro	Ballast		6,973	4,670
Acajutla	5-24	16.15	29	10.40	29	17.32	29	19.20	British	Pacific Steam Navigation Co	215.0	33.5	16.6	Cristobal	Champerico	General	1,159	1,273	706
Bethore	29	11.03	29	11.25	29	19 19	29	20.15	American	Ore Steamship Co	550.3	72.2	24.0	New York	Cruz Grande	Ballast		15,476	4,354
Rochester [3]	29	6.55	30	6.25	30	13.30			American	U. S. Navy	380.6	64.9	27.0	Key West	Balboa	Ballast			
Nassa [1]	29	14.20	30	7.40	30	14.49	30	15.55	British	Anglo-Saxon Petroluem Co	412.0	53.0	19.10	London	San Francisco	Ballast		6,236	4,338
Ispwich	30	2.00	30	8.30	30	16.11	30	17.20	American	United-American Line	400.7	54.2	17.0	New York	Portland	General	3,040	6,616	4,614
Edward Luckenbach	30	5.38	30	9.12	30	17.01	30	18.00	American	Luckenbach Line	436.0	57.0	24.8	Boston	Puget Sound	General	4,707	8,543	6,427
Kaikoura	29	22.05	30	11.50	30	19.20	30	20.15	British	New Zealand Shipping Co	460.0	58.0	29.4	Cardiff	Dunedin	General	8,661	9,057	6,438
Esther Dollar	30	12.00	30	12.10	30	19.58	31	13.58	British	Dollar Line	483.6	56.0	18.0	Marseilles	Manila	(7)	2,759	9,873	7,140
O-1 [4]			30	8.00	30	14.48			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			
O-8 [4]			30	8.00	30	14.48			American	U. S. Navy	172.4	18.3		Cristobal	Balboa	Ballast			

[1] Tanker. [2] Motor ship. [3] Cruiser. [4] Submarine. [5] Machinery and asphalt. [6] Cement, paper, and general. [7] Fertilizer, steel, and general.

Curlew [8]	....	.....	31	6.30	31	15.26	....	.....	American...	U. S. Navy	.....	.....	.....	Cristobal	Balboa	.....	.....	.....	.....
Tustem [1]	30	16.10	31	6.15	31	15.48	1	17.43	American...	Atlantic Refining Co	425.0	57.2	19.6	Philadelphia	Los Angeles	Ballast	.....	7,204	4,768
Santa Teresa	30	19.10	31	7.05	31	16.35	31	17.35	American...	Grace Line	360.2	50.6	25.2	New York	Talcahuano	General	2,991	5,726	4,086
Katrina Luckenbach	31	11.22	31	11.40	31	18.28	31	19.25	American...	Luckenbach Line	446.0	56.0	25.6	Mobile	Seattle	General	4,800	8,508	6,179
Californian [9]	31	13.45	31	13.55	31	20.15	31	21.12	American...	American-Hawaiian Line	461.8	59.8	20.0	Philadelphia	Puget Sound	General	3,500	8,567	6,020
Negada	31	13.40	1	6.15	1	15.10	2	2.38	German...	Kosmos Line	410.9	50.7	26.6	Hamburg	Guayaquil	General	6,079	6,402	4,463
H. C. Folger [1]	31	16.40	1	6.25	1	14.25	1	15.25	American...	Atlantic Refining Co	435.0	56.0	23.0	London	San Pedro	Ballast	.....	7,461	5,145
President Harrison	1	3.05	1	7.25	1	16.20	2	0.35	American...	Dollar Line	502.1	62.2	22.6	New York	Los Angeles	General	2,500	12,031	8,495
Point Lobos	31	22.10	1	7.45	1	16.12	1	22.25	American...	Swayne & Hoyt	289.0	44.0	15.0	New Orleans	San Pedro	General	1,670	2,835	1,967
Buenos Aires [9]	1	1.46	1	8.35	1	16.58	2	15.55	Swedish...	Johnson Line	440.0	56.0	21.6	Sweden	San Francisco	General	5,120	7,591	5,661
Cape Ann [1]	1	2.18	1	8.38	1	17.06	1	18.10	American...	Cape Steamship Co	425.8	57.0	19.0	New York	San Pedro	Ballast	.....	7,484	5,216
Schwarzwald	1	5.55	1	9.40	1	17.57	1	23.40	German...	Hamburg-American Line	399.0	54.0	20.10	Hamburg	Corral	General	3,357	6,571	4,607
Kalomo	1	6.41	1	10.30	1	18.56	1	20.15	British...	Norton, Lilly & Co	400.0	52.3	23.0	New York	Auckland	([11])	5,067	5,672	4,042
Jamaica	27	19.15	2	6.12	2	14.44	2	18.30	British...	Pacific Steam Navigation Co	220.0	33.0	14.6	Cristobal	Guayaquil	General	1,062	1,187	622
Santa Olivia	30	21.20	2	6.10	2	14.05	2	15.45	American...	Pacific Mail Steamship Co	404.0	53.9	23.0	Baltimore	San Francisco	General	3,597	6,779	4,921
Loreto [9]	1	4.45	2	6.22	2	15.41	3	0.16	British...	Pacific Steam Navigation Co	406.2	54.2	19.11	Glasgow	Corral	General	5,229	7,336	5,010
Edgemoor [10]	30	21.50	2	6.52	2	16.31	3	0.16	American...	U. S. Army (S. B.)	409.6	54.2	25.6	Brooklyn	San Francisco	([12])	5,843	.....	.....
Jennie R. Merse	1	16.40	2	8.40	2	17.24	2	18.28	American...	Barber Line	402.6	53.2	24.0	New York	Honolulu	General	5,670	6,570	4,798
Eastern Moon	2	6.25	2	9.40	2	17.18	2	18.20	American...	U. S. & A. Line (S. B.)	385.0	51.2	23.0	New York	Sydney	Case oil, general	6,300	5,904	4,321
Louqsor	2	6.55	2	11.25	2	18.40	3	7.42	French...	Messageries Maritimes	447.0	52.6	27.0	Dunkerque	Noumea	General	4,364	.....	.....
Delft	1	17.18	2	12.25	2	19.49	3	5.40	Dutch...	Royal Netherlands W. I. Mail	370.0	50.3	26.0	Hamburg	Corral	General	6,282	5,862	4,393
Mount Berwyn	2	11.08	2	13.05	2	20.18	2	21.20	British...	H. E. Morse & Co	400.3	52.3	25.3	Norfolk	Antofagasta	Coal	6,863	5,783	3,990

[1] Tanker. [8] Tug. [9] Motor ship. [10] Transport. [11] Gasoline, automobile, general, and oil. [12] Army supplies and explosives.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Illinois	26	15.35	27	6.15	27	14.50	27	15.55	French...	Cie. Generale Transatlantique	400.0	51.6	25.0	Vancouver	La Havre	General	7,920	6,028	4,294
Standard [1]	26	16.00	27	7.14	27	15.50	27	15.50	American...	Standard Oil Co. of N. J.	523.8	68.6	30.0	Los Angeles	New York	Crude oil	17,000	12,171	8,182
Tuscaloosa City	26	22.00	27	7.35	27	17.00	37	21.05	American...	Isthmian Steamship Lines	424.2	56.2	24.6	Everett	Boston	Lumber, general	6,705	7,611	5,450
Lillian Luckenbach	26	23.00	27	8.28	27	17.30	27	17.30	American...	Luckenbach Line	448.9	60.2	25.6	Portland	New York	([14])	5,500	9,294	6,865
Canadian Freighter	27	1.30	27	8.40	27	18.17	28	5.30	British...	Canadian Govt. Mer. Marine	400.0	52.4	24.0	Vancouver	Glasgow	Lumber, general	6,270	6,224	4,487
Jamaica	27	6.00	27	9.22	27	19.15	2	6.12	British...	Pacific Steam Navigation Co	220.0	34.0	12.3	Guayaquil	Cristobal	General	605	1,187	622
Steel Age	27	6.00	27	9.52	27	19.10	28	2.09	American...	Isthmian Line	395.5	55.0	27.0	Seattle	Liverpool	General	8,464	7,330	5,215
Pacific Trader	27	8.20	27	14.26	27	20.45	27	20.45	British...	Furness, Withy Co	420.0	58.0	26.6	Portland	London	General	7,838	7,982	5,858
John D. Archbold [1]	28	1.00	28	7.28	28	15.45	28	15.45	American...	Standard Oil Co. of N. J.	555.0	75.0	30.8	San Pedro	New York	Crude oil	19,279	14,785	10,313
Amersfoort	28	9.00	29	6.13	29	13.45	30	1.40	Dutch...	Royal Netherlands W. I. Mail	483.0	62.7	25.6	Corral	Hamburg	General	10,547	10,083	6,883
Robin Adair	28	19.10	29	6.42	29	15.05	29	15.05	American...	Seas Shipping Co, Inc	424.8	55.2	25.6	Tacoma, Wash	New York	([15])	7,363	7,470	5,529
Montreal Maru	28	20.00	29	7.20	29	15.40	29	16.30	Japanese...	Kawasaki Kisen Kaisha	405.0	53.0	28.3	Caleta Colosa	New Orleans	Nitrates	9,081	7,034	5,081
Foldenfjord [1]	28	21.00	29	7.30	29	16.40	29	21.00	Norwegian...	Anglo-Saxon Pet. Co., London	445.1	59.0	26.2	San Pedro	Lands End [13]	Gasoline	8,585	7,780	5,520
San Gaspar [1]	29	3.00	29	8.29	29	16.50	29	16.50	British...	Eagle Oil Transport Co., Ltd	530.0	68.6	30.6	San Pedro	Tampico	Crude oil	16,879	13,422	9,350
H. H. Rogers [1]	29	1.50	29	8.46	29	18.00	29	18.00	American...	Standard Oil Co. of N. J.	500.0	68.0	29.6	San Pedro	New York	Crude oil	10,800	10,333	7,475
Panaman	29	7.30	29	9.16	29	17.25	29	22.50	American...	American-Hawaiian Line	407.0	53.0	22.6	Seattle	Boston	General, lumber	5,200	7,098	5,029
Gargoyle	29	8.00	29	9.51	29	18.30	29	18.30	American...	Vacuum Oil Co	425.0	52.7	28.0	Richmond	Paulsboro	Lubricating oil	10,305	7,510	4,989

[1] Tanker. [13] For orders. [14] Lumber, copper, general. [15] Lumber, magnesite ore

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC—continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chuky [1]	28	23.00	29	12.15	29	20.35	29	21.00	British	Chile Steamship Co	449.0	56.0	28.2	Talara, Peru	Charleston	Crude oil	10,451	7,691	4,723
Bologna	29	1.00	29	13.32	29	20.08	1	4.00	Italian	La Veloce Line	384.9	46.7	21.3	Valparaiso	Genoa	General	1,763	5,531	3,774
Benvenue	29	16.30	30	6.14	30	14.09	30	16.10	British	Ben Line, Ltd	379.0	46.0	22.0	Vancouver	Kingston	Wheat	5,129	4,173	3,011
British Beacon [1]	28	8.15	30	7.20	30	15.50	30	15.30	British	British Government	430.1	57.0	15.6	Los Angeles	Curacao			7,242	4,932
Santa Rosa	30	1.00	30	8.26	30	15.45	30	16.25	American	Pacific Mail Steamship Co	494.0	54.0	19.0	San Francisco	New York	General	3,009	6,751	4,789
Urubamba	30	3.30	30	9.31	30	16.45			Peruvian	Peruvian Line	381.2	46.1	17.6	Callao	Cristobal	General	1,259	4,803	2,951
District of Columbia [1]	30	3.10	30	12.29	30	19.50	30	22.08	American	Walker & Daly	431.0	59.2	25.5	San Pedro	Bayonne, N. J.	Crude oil (bulk)	10,009	8,097	5,431
Odenwald [16]	30	6.30	30	14.08	30	23.05	31	1.45	German	Hamburg-American Line	399.4	54.2	25.8	Antofagasta	Hamburg	([18])	8,100	6,898	4,979
Baldhill [1]	30	13.35	30	14.40	31	0.37	31	3.37	American	Walker & Daly	416.9	56.2	27.0	San Pedro	New York	Crude oil	9,711	6,728	4,692
Agwismith [1]	30	20.30	31	7.10	31	15.15	31	15.15	American	International Shipping Corp	499.9	68.1	27.10	San Pedro	New York	Crude oil	14,500	10,853	7,736
Steelere	31	0.50	31	8.28	31	19.30	31	19.30	American	Ore Steamship Corporation	550.3	72.2	33.6	Cruz Grande	Sparrows Point	Iron ore	20,099	15,551	4,297
W. S. Rheem [1]	31	5.52	31	9.00	31	18.25	31	18.25	American	Standard Oil Co. of California	500.0	68.2	29.6	San Pedro	New York	Crude oil	15,090	11,224	7,860
Edgemont	31	5.30	31	9.28	31	19.45	31	19.45	American	Tampa Interocean Steamship Co	410.5½	54.0	24.6	Cebu, P. I.	New Orleans	([19])	6,851	7,118	5,868
Agwimoon [1]	31	8.19	31	10.30	31	20.25	31	21.35	American	International Shipping Corp	249.0	59.2	28.6	San Francisco	New York	Crude oil	11,500	7,695	5,402
Coahuila	30	14.35	31	11.22	31	20.45	1	0.40	Mexican	Mexican Free Port Commission	306.4	45.2	15.6	Topolobampo	Vera Cruz	Sugar	1,500	3,101	2,292
Tsad	31	9.05	31	12.28	31	21.20	1	12.14	German	Hamburg-American Line	355.8	44.0	18.0	Champerico	Hamburg	General	92	4,227	2,716
Easterner	31	12.15	31	13.00	31	21.55	31	21.55	American	U. S. & A. Lines	385.0	51.0	17.0	Melbourne	New York	General	325	5,945	4,561
Rimutaka	31	8.40	31	14.45	31	23.50	1	2.20	British	New Zealand Shipping Co	457.0	52.0	23.0	Auckland	Avonmouth	General	4,358	9,201	6,961
J. C. Donnell [1]	31	15.45	1	6.31	1	13.45	1	13.45	American	Atlantic Refining Co	500.0	68.2	29.0	San Pedro	Philadelphia	Crude oil (bulk)	13,500	10,435	7,304
Ballena	31	21.15	1	7.06	1	15.55	1	18.15	British	Pacific Steam Navigation Co	400.1	52.3	23.9	Corral, Chile	Liverpool	General	6,938	6,816	4,113
Tjibesar	1	6.15	1	7.56	1	16.12	1	18.10	Dutch	Java, China, Japan Line	519.0	63.6	30.0	Caleta Colosa	English Chan	Nitrate of soda	13,500	11,709	8,274
Balto	1	7.15	1	9.14	1	18.10	1	19.40	Norwegian	C. K. West & Co	445.5	57.7	25.6	Astoria	Liverpool	Lumber, general	8,400	7,601	5,609
Japan Arrow [1]	1	10.55	1	11.48	1	20.35	1	22.53	American	Standard Transportation Co	468.3	62.7	27.0	Los Angeles	New York	Crude oil	12,000	10,084	7,426
Agwistone [1]	1	11.35	1	12.45	1	22.12	1	22.12	American	International Shipping Corp	499.9	68.1	29.6	San Pedro	New York	Crude petroleum	15,200	10,853	7,801
Poplar Branch	1	15.10	2	6.21	2	18.15	2	19.50	British	F. & W. Ritson	396.2	56.2	24.0	Corral	Liverpool	([20])	7,415	6,640	5,099
Curlew			2	6.25	2	16.25			American	U. S. Navy				Balboa	Cristobal				
R-23 [17]			2	6.25	2	16.25			American	U. S. Navy				Balboa	Cristobal				
R-27 [17]			2	6.25	2	16.25			American	U. S. Navy				Balboa	Cristobal				
El Condado	1	17.20	2	7.26	2	16.45	2	20.25	Spanish	A. Navajas	330.6	48.9	21.0	Caleta Buena	Bilbao	Nitrate	5,950	3,730	2,637
Ortega	2	2.20	2	8.36	2	17.00	2	23.59	British	Pacific Steam Navigation Co	465.0	56.0	25.0	Talcahuano	Liverpool	General	4,214	8,345	4,998
Cubore [16]	1	15.00	2	9.05	2	18.27	2	18.27	American	Ore Steamship Corporation	459.6	57.2	29.0	Cruz Grande	Baltimore	Iron ore	10,500	9,756	4,866
Arana	2	4.30	2	9.27	2	17.30	3	1.45	British	Pacific Steam Navigation Co	303.4	43.0	14.6	Callao	New York	General	340	2,851	1,697
San Juan	1	23.46	2	11.35	2	19.07			American	Pacific Mail Steamship Co	283.0	27.0	17.0	San Francisco	New York	([21])	760	2,379	1,593
Amsterdam	2	11.34	2	12.27	2	20.05	2	23.10	Dutch	Royal Amsterdam	475.0	65.6	32.0	Valparaiso	Rotterdam	Nitrate	14,350	11,647	8,217
Shreveport [1]	2	12.45	2	13.30	2	21.15	2	21.15	American	Cities Service Co	435.0	56.0	28.0	San Pedro	Boston	Crude oil	10,000	7,411	5,109
Steel Trader	2	12.55	2	14.17	2	22.25	2	22.25	American	Isthmian Line	424.2	56.2	24.0	Everett	Baltimore	Lumber	5,800	7,611	4,459

[1] Tanker. [16] Motor ship. [17] Submarine. [18] Saltpeter and barley. [19] Rice, lumber, and coconut oil. [20] Wheat, nitrate, sugar, cotton. [21] Coffee, logs, hides, etc.

Hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

*ARRIVALS.

Date.	Vessel.	Line.	From—
July 27	Heredia	United Fruit Co.	New Orleans via Habana.
July 27	Calamares	United Fruit Co.	Port Limon.
July 28	La Navarre	French Line	St. Nazaire via wayports.
July 29	Pastores	United Fruit Co.	New York via Habana.
July 29	Tug Senator Bailey and 3 barges	Gulf Refining Co.	Port Arthur.
July 29	Turrialba	United Fruit Co.	New Orleans via Habana.
July 29	Crynssen	Royal Netherlands W. I. Mail	Hamburg via wayports.
July 30	Brion	Royal Netherlands W. I. Mail	Curacao.
July 30	Heredia	United Fruit Co.	Bocas del Toro.
July 30	Sixaola	United Fruit Co.	New York via Kingston.
July 30	Metapan	United Fruit Co.	Colombian ports.
July 30	Antillian	Leyland Line	Liverpool via wayports.
July 31	Ulysses [22]	Panama Railroad Steamship Line	Norfolk.
August 1	Crynssen	Royal Netherlands W. I. Mail	Port Limon.
August 2	Panama	Panama Railroad Steamship Line	New York via Haiti.

*DEPARTURES.

Date.	Vessel.	Line.	For—
July 27	Calamares	United Fruit Co.	New York via Habana.
July 27	Heredia	United Fruit Co.	Bocas del Toro.
July 29	Gen. W. C. Gorgas	Panama Railroad Steamship Line	New York via Haiti.
July 30	La Vavarre	French Line	St. Nazaire via wayports.
July 30	Crynssen	Royal Netherlands W. I. Mail	Port Limon.
July 30	Heredia	United Fruit Co.	New Orleans via Habana.
July 30	Pastores	United Fruit Co.	Port Limon.
July 30	Arabia [23]	San Blas Developing Co.	Colon.
July 31	Sixaola	United Fruit Co.	Colombian ports.
July 31	Metapan	United Fruit Co.	New York via Kingston.
July 31	Turrialba	United Fruit Co.	New Orleans via wayports.
August 1	Antillian	Leyland Line	Port Limon.
August 2	Crynssen	Royal Netherlands W. I. Mail	Amsterdam via wayports.
August 2	Brion	Royal Netherlands W. I. Mail	Curacao.
August 2	Tug Senator Bailey and barges	Gulf Refining Co.	Curacao.

[22] Collier. [23] Motor schooner.

PORT OF BALBOA.

July 27	Anyo Maru	Toyo Kisen Kaisha	Valparaiso.	July 28	Anyo Maru	Toyo Kisen Kaisha	Hongkong.
July 27	Utacarbon	Union Oil Co. of California	Los Angeles.	July 28	Utacarbon	Union Oil Co. of California	San Diego.

* Other than ships passing through the Canal.

Panama Railroad Steamship Line.

Following are proposed sailings of passenger vessels of the Panama Railroad Steamship Line:

Steamer.	Leave New York.	Leave Port-au-Prince	Arrive Cristobal.	Leave Cristobal.	Leave Port-au-Prince	Arrive New York.
General W. C. Gorgas...	.....	.....	.....	July 29.....	August 1....	August 6.
Panama.....	July 25.....	July 30.....	August 2....	August 8.....	August 11...	August 16.
Cristobal [1].....	August 5.....	August 10...	August 13...	August 19...	August 22...	August 27.
General W. C. Gorgas...	August 15...	August 21...	August 24...	August 29...	September 1.	September 6.
Panama.....	August 25...	August 30...	September 2.	September 8.	September 11	September 16
Cristobal [1].....	September 5.	September 10	September 13	September 19	September 22	September 27
General W. C. Gorgas...	September 15	September 21	September 24	September 29	October 2...	October 7.
Panama.....	September 22	September 27	September 30	October 9...	October 12..	October 17.
Cristobal [1].....	October 4...	October 9...	October 12..	October 19..	October 22..	October 27.
General W. C. Gorgas...	October 15..	October 21..	October 24 ..	October 29..	November 1.	November 6.
Panama.....	October 25..	October 30..	November 2.	November 9.	November 12	November 17

[1] Sails 3 p. m. from Pier 65, North River, foot of West 25th Street.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa for Week Ending July 26, 1924.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Poljana.....	Winge & Co.....	July 22.....	July 23.....	816	.....
Manuel Arnus.....	Spanish Line.....	July 22.....	July 23.....	114	.....

Postal and Cable Addresses of The Panama Canal.

The postal address is "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal stations should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Circulars.

Acting Governor.

THE PANAMA CANAL,
EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., August 1, 1924.

To all concerned—Effective the 3d instant, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., Engineer of Maintenance, will be Acting Governor.

JAY J. MORROW,
Governor.

In Charge of Panama Railroad Operations on the Isthmus.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., August 1, 1924.

To all concerned—Effective the 3d instant, and during my absence from the Isthmus, Col. M. L. Walker, U. S. A., Second Vice President, will perform such duties of the President as relate to the operations of the Company on the Isthmus.

JAY J. MORROW,
President.

Cable Rates.—Dominican Republic.

Effective upon the opening of the Santo Domingo office, probably early in August, the following rates will apply to the Dominican Republic:

To Santo Domingo, 50 cents per word.

To La Romana, 58 cents per word.

To all other places in the Dominican Republic, 53 cents per word.

The deferred rate will be one-half of the above, and accepted only for Santo Domingo.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $2.00 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.35 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present range as follows: Crude fuel oil, $1.90 and $2.00 per barrel at Cristobal, and Balboa; Diesel oil, Balboa only, $2.35 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $9 per ton of 2,240 pounds at Cristobal and $12 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $9 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $10 per ton at Cristobal, $13 at Balboa. For delivering lump coal for galley use, in sacks, $12 additional per ton; but if vessel furnishes sacks, $5 per ton additional

Effective September 1, 1924, the price of coal will be reduced to $8.50 per ton at Cristobal and $11.50 at Balboa.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal can be made at the rate of from 100 to 700 tons an hour as fast as the ships can receive it in their bunkers. Oil deliveries can be made up to 2,000 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

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